

# भारत का राजपत्र

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इस माग में भिन्न पुल संख्या दी जाती है जिससे कि यह अलग संकलन के रूप में रखा जा सके  
[Separate paging is given to this Part in order that it may be filed as a separate compilation]

### भाग III—खण्ड 2 (PART III—SECTION 2)

पेटेन्ट कार्यालय द्वारा जारी की गई पेटेन्टों और डिजाइनों से सम्बन्धित अधिसूचनाएं और नोटिस  
(Notifications and Notices Issued by the Patent Office relating to Patents and Designs)

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Calcutta, the 7th April 2001

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कलकत्ता, विनांक 7 अप्रैल 2001

पेटेंट कार्यालय के कार्यालयों के पास एवं क्षेत्रीयकार

पेटेंट कार्यालय का प्रधान कार्यालय कलकत्ते में अवस्थित है तथा मुख्यद्वारे, दिल्ली गढ़ सेन्टर्स में इसके शास्त्र कार्यालय है, जिनके प्रावर्तीयक धैशाधिकार जौन के आधार पर निम्न रूप में वर्णित हैः—

पेटेंट कार्यालय शास्त्र, टॉडी इस्टेंट,

तीसरा तल, लोअर पर्सेल (७.)

मुम्बई-400013।

ग्रजगत, महाराष्ट्र, मध्य प्रदेश

तथा गोआ राज्य क्षेत्र एवं मंष

शासित क्षेत्र, दमन तथा दीव एवं

दादर और नगर हृदेशी।

तार पता - "पेटेंटोफिल"

फोन : 482 5092 फैक्स : 022 495 0622

पेटेंट कार्यालय शास्त्र,

एकक सं. 401 से 405, तीसरा तल,

नगरपालिका बाजार भवन,

मरम्बाणी मार्ग, करोल बाग,

नहूँ दिल्ली-110 005।

हरियाणा, हिमाचल प्रदेश, जम्म

तथा कश्मीर, पंजाब, राजस्थान,

उत्तर प्रदेश तथा दिल्ली राज्य

क्षेत्रों में गंद शासित क्षेत्र वर्डीत।

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फोन : 578 2532 फैक्स : 011 576 6204

## पेटेंट कार्यालय शास्त्र,

विंग "सी" (सी-4, ए),

तीसरा तल, राजापी भवन,

बंसल नगर, बंगल-600090।

आन्ध्र प्रदेश, कर्नाटक, केरल, तमिलनाडू

तथा पाञ्चालिकी राज्य क्षेत्र एवं

मंग शासित क्षेत्र, लम्बद्वीप, मिनिकाय

तथा एमिनिदिवि द्वीप।

## तार पता—"पेटेंटोफिल"

फोन : 490 1495 फैक्स : 044 490 1492

## पेटेंट कार्यालय (प्रधान कार्यालय),

निजाम एलेस, दिल्लीय बहुतलीय कार्यालय

भवन, 5, 6 तथा 7वां तल,

234/4, आचार्य जगदीश बास मार्ग,

कलकत्ता-700 020।

भारत का अवशेष क्षेत्र।

## तार पता - "पेटेंट्स"

फोन : 247 4401 फैक्स : 033 247 3851

पेटेंट अधिनियम, 1970 तथा पेटेंट (रोशन) अधिनियम, 1999 अथवा पेटेंट (संशोधन) नियम, 1972 द्वारा अपीक्षित सभी अवैदन, सुचनाएँ, विवरण या अन्य दस्तावेज या कोई कीस पेटेंट कार्यालय के कोल समूचित वर्गालय में ही छह किम्बा चारों [ ]

शुल्क : शुल्कों की अद्यार्थी या तो नकद की जाएगी अथवा जहाँ उपयुक्त कार्यालय अवस्थित है, उस स्थान के अनुसूचित बैंक से नियंत्रक को भूतान योग्य बैंक ड्रॉफ्ट अथवा चेक बूदारा की जा सकती है।

## COMPLETE SPECIFICATION ACCEPTED

Notice is hereby given that any person interested in opposing the grant of a patent on any of the applications concerned, may, at any time within four months from the date of this issue or within such further period not exceeding one month if applied for on Form 4 prescribed under the Patent (Amendment) Rules, 1999 before the expiry of the said period of four months, give notice to the Controller of Patents at the appropriate office on the prescribed Form 7 of such opposition. The written statement of opposition should be filed in duplicate alongwith evidence, if any, with said notice or within sixty days of its date as prescribed in Rule 36 as amended by the Patents (Amendment) Rules, 1999.

The Classification given below in respect of each specification are according to Indian Classification and International Classification Systems

Printed copies of the specification and drawings, if any, can be supplied by the Patent Office or its branch offices on payment of prescribed charge of Rs. 30/- each.

In the event of non-availability of printed specification, photocopies of the specification and drawings, if any, can be supplied by the Patent Office and its branch offices on payment of prescribed photocopy charges @ Rs. 10/- per page of such document plus Rs. 30/-.

## स्वीकृत सम्पूर्ण विविहित

एतद्वारा मह सूचना ही वाली है कि संबूध वार्षिकी में से किसी पर पेटेंट अनुदान के विवेद करने के इच्छुक व्यक्ति, इसके निर्गम की तिथि से बार (4) महीने या अधिक एसी विवेद जो उद्दत धार (4) महीने की अवधि की समाप्ति के पूर्व, पेटेंट (संशोधन) नियम, 1999 के तहत विहित प्रकृति 4 पर बनार वार्षिक है, एक महीने की अवधि से अधिक न हो, के भीतर कभी भी विवेद-प्रकृति एकस्थ को उपयुक्त कार्यालय में एसे विवेद की सूचना विहित प्रकृति 7 पर दे सकते हैं। विवेद संबंधी लिखित वक्तव्य दो प्रतियों में साक्ष के सार्व, यीद लौह हो, उक्त सूचना के साथ पेटेंट (संशोधन) नियम, 1999 द्वारा संशोधित नियम 36

के तहस प्रभावित हुए उक्त सूचना के तिथि से 60 दिन के भीतर फार्मल कर दिये जाने चाहिए।

ग्रन्थक विनियोग के संदर्भ में नीचे दिये गयी कारण, भारतीय प्रभावित सथा अन्तर्राष्ट्रीय वर्गीकरण के अनुरूप हैं।

विनियोग तथा पिछे आरेख, पौद कोइ हो, छोटी अंकित प्रतिवानों की आमूली पट्टै कार्यालय या उसके शास्त्र कार्यालयों की प्रभावित 30/- रुपए प्रति की बदायगी पर की जा सकती है।

एरोपी परिवर्तन में जब विनियोग की अंकित प्रति उपलब्ध नहीं हो, विनियोग तथा पिछे आमूल, पौद कोइ हो, की पर्याप्त प्रतिवानों की आमूली पट्टै कार्यालय या उसके शास्त्र कार्यालयों की प्रभावित लोटीप्रति शुल्क उक्त दस्तावेज के 10 रुपये प्रति पृष्ठ भन 30/- रुपये की बदायगी पर की जा सकती है।

Ind. Cl. : 63 B 185681

Int. Cl. : H 02 K 3/24.

\* ROTOR WINDING OF ELECTRIC MACHINE WITH AT LEAST ONE ARRANGEMENT COMPRISING PLURALITY OF CONDUCTOR BARS EXTENDING ALONG A LONGITUDINAL AXIS AND STACKED ON ONE ANOTHER ALONG A VERTICAL AXIS.

Applicant : SIEMENS AKTIENGESELLSCHAFT, WITTELSBACHERPLATZ 2, 80333 MUENCHEN, GERMANY.

Inventor(s) :

1. RALF BOMBA.
2. WILHELM WESTENDORF.

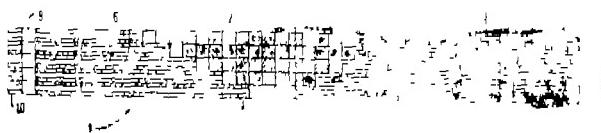
Application for Patent No. 647/Cal, 95 filed on 06-06-95.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

8 Claims

Rotor winding of electric machine with atleast one arrangement (1) comprising plurality of conductor bars (4) extending along a longitudinal axis (2) and stacked on one another along a vertical axis (3) each of said conductor bars has four ventilating ducts (6, 7) which are aligned parallel to the longitudinal axis (2) and disposed next to one another in pairs in the direction of a transverse axis (5) perpendicular to the longitudinal axis (2) and parallel to the vertical axis (3) and disposed one behind another in pairs along the longitudinal axis (2), each of said ventilating ducts reaching from an associated one of orifices (8, 9) in the vicinity of one end (10) of the arrangement (1) into one of two gas outlet zones (11) disposed approximately centrally relative to the longitudinal axis (2), said gas outlet zones having an outlet duct (12) directed at an acute angle relative to the vertical axis (3), characterized in that each of said conductor bars (4) for each pair of ventilating ducts (6, 7) disposed next to one another, the orifice (8) of one of said ventilating ducts (6) is disposed directly at one of said ends (10) and the orifice (9) of the other of said ventilating duct (7) is spaced from said end (10), and for each pair of said ventilating ducts (6, 7) disposed one behind another the orifice (8) of said ventilating duct (6) disposed

directly at said end (10) to which it leads and said orifice (9) of the other of said ventilating duct (7) spaced from said end (10) to which it leads.



(Compl. Specn. : 12 Pages;

Drgns. : 3 Sheets)

Ind. Cl. : 186 E.

185682

Int. Cl. : H 04 N 7/13.

#### AN APPARATUS FOR BROADCAST VIDEO BURST TRANSMISSION CYCLIC DISTRIBUTION.

Applicant : BURST. COM, INC. 1209 ORANGE STREET, WILMINGTON, COUNTY OF NEW CASTLE, U.S.A.

Inventor(s) :

1. ERIC HALL WALTERS.
2. RICHARD A LANG.
3. RALF I MINCER.

Application for Patent No. 899 Cal/95 filed on 02-08-95.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

14 Claims

An apparatus (210) for broadcast video burst transmission cyclic distribution comprising :

on-line storage means (240) for storing a predetermined number of audio/video programs and for providing access to the audio/video programs for burst transmission thereof;

burst transmission means (290) coupled to said on-line storage means for accessing said audio video programs stored in said on-line storage means;

receiving means (40, 150, 220) at each of multiplicity of subscribed locations;

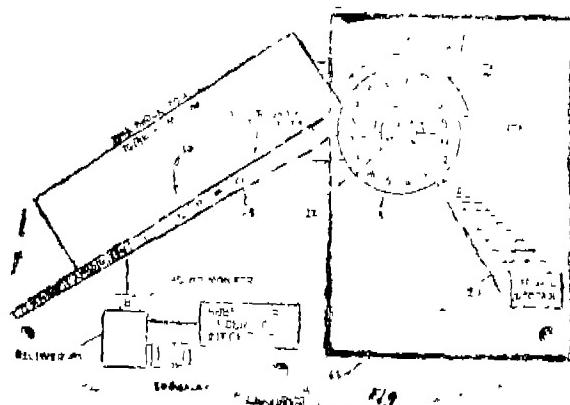
Characterized in that

the burst transmission distribution apparatus (210) provides cyclic distribution;

in that the burst transmission means (290) is coupled to a subscriber location for repeatedly burst transmitting the audio/video programs to the subscriber location in a pre-determined sequence in which the programs are accessed from the on-line storage means (240); and

in that each receiving means is directly coupled to the burst transmission means (290) for receiving the audio/video programs stored in the on-line storage means (240) and the

receiving means comprises storage means (300) for selectively storing one or more of the audio video programs for real-time playback by a subscriber.



(Compl. Specn. : 30 Pages;

Drgns. : 4 Sheets)

Ind. Cl. : 85 G.

185683

Int. Cl. : F 27 B 15/00.

#### A METHOD OF MANUFACTURE OF A SINTERED CEMENT CLINKERS AND AN APPARATUS THEREOF.

Applicant : 1. KAWASAKI JUKO GYO KABUSHIKI KAISHA, 1-1, HIGASHIKAWASAKI-CHO, 3-CHOME, CHUO-KU, KOBE, JAPAN. 2. SUMITOMO OSAKA CEMENT CO., LTD., 1, KANDA MIYOSHI-CHO, CHI-YODA-KU, TOKYO 101, JAPAN.

Inventor(s) :

1. ISAO HASIUM OTO.
2. SHOZO KANAM ORI.
3. MIKIO MURAO
4. NORIO YOKOTA.
5. NICHITAKA SATO.
6. KATSUJI MUKAI.

Application for Patent No. 1048/Cal/95 filed on 31-08-95.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

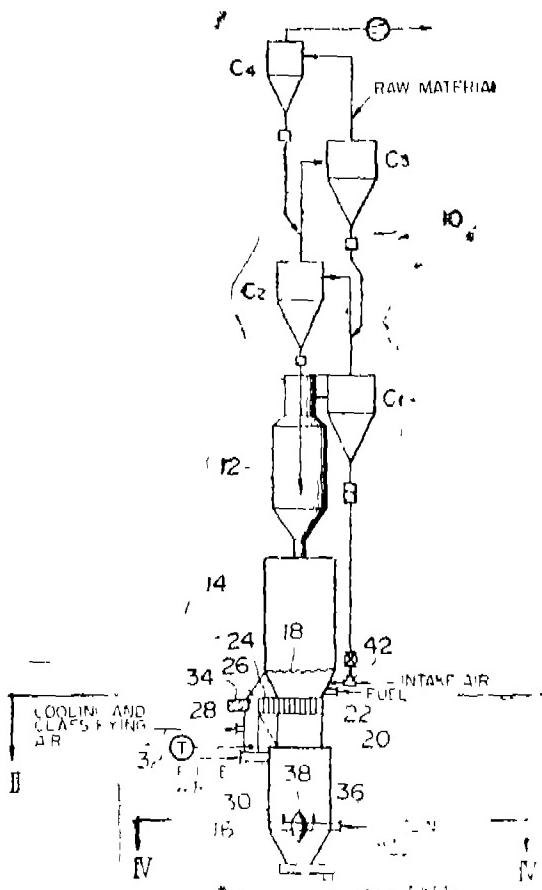
15 Claims

A method of manufacture of sintered cement clinkers comprising the steps of :

- (a) preheating raw cement powder material;
- (b) granulating and sintering said preheated raw cement powder material in a combined fluidized bed granulating and sintering furnace (14) to form granulated and sintered clinkers;
- (c) classifying said clinkers above a clinker dropping hole (26) and on a discharging grooved portion (24) said clinker dropping hole (26) being provided in a radial direction extending from an upper surface of a fluidizing gas distributor (22) of the granulating and sintering furnace (14) through the discharging grooved portion (24), said grooved portion (24) having a plurality of nozzles and being formed between the gas distributor (22) and the clinker dropping hole (26);
- (d) discharging classified clinkers from the fluidized bed granulating and sintering furnace (14) through said clinker dropping hole (26);

- (e) further classifying and cooling the clinkers by blowing air into a discharge chute (28) connected to the clinker dropping hole (26) while regulating the amount of the blown air in such a manner that granulated and sintered clinkers are quenched down to primary cooling temperature and wherein a flow velocity of the air blowing from the clinker dropping hole (26) is different from a flow velocity of air flowing through the nozzles of the gas distributor (22); and
- (f) introducing the clinkers into a cooling device (16) via hermetic discharge means (30) provided below a classifying and cooling air intake pipe (32).

FIG 1



(Compl. Specn. 27 Pages;

Drgns. 7 Sheets)

Ind. Cl. : 143 D<sub>2</sub>

185684

Int. Cl. : B 65 D 30/18, 33/02.

#### A CONTAINER HAVING A RECTANGULAR BASE AND ITS MANUFACTURE.

Applicant & Inventor(s) : AVNIR GELLER, 6 ACHUZAT BAIT STRI ET, TEL-AVIV 65143, ISRAEL.

Application for Patent No. 1147/Cal/95 filed on 22-09-95.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

25 Claims

A container (11) having a rectangular base (20) formed out of a third film sheet (3) and walls formed out of two first and second film sheets (1, 2); the two first

second film sheets being welded to one another along their lateral edges (6) and sandwiching therebetween at a bottom portion, two lateral edges (8) of the third film sheet (3) which are folded about a fold line (7) thereof;

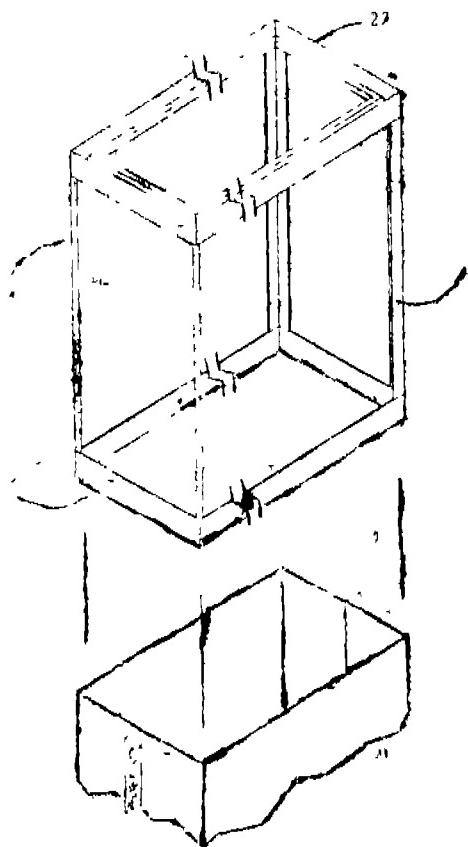
a bottom edge (5) of each of the first and second film sheets (1, 2) being welded to a corresponding bottom edge (4) of the third film sheet (3);

the container (11) characterized in that;

both faces of said third film sheet (3) and at least an inner face of the two first and second film sheets (1, 2) are made of a heat weldable material;

the container has two overlapping isosceles triangular portions (19) formed out of the third film sheet (3), with a base of each triangle (19) defining a side edge of the container's base (20), whereby front and rear edges of the container's base extend between said side edges; and

the container's rectangular structure being fixed by welding the base of the outer triangle of the overlapping triangular portions (19) to the sheets.



(Compl. Specn. : 15 Pages;

Dings Sheets 20)

Ind. Cl. : 128 E, 123 G.

185685

Int. Cl. : A 61 M 11/00, 11/02

A METHOD OF PRODUCING A CONSOLIDATED MEDICAMENT RESERVOIR AND AN APPARATUS FOR CARRYING OUT THE METHOD.

Applicant : GGU GESELLSCHAFT FÜR GESUNDHEITS-UND UMWELTFORSCHUNG MBH & CO. VERTRIEBS KG, IN DER SCHILDWACHT 13, D-60933 FRANKFURT, FED. REP. OF GERMANY.

#### Inventors :

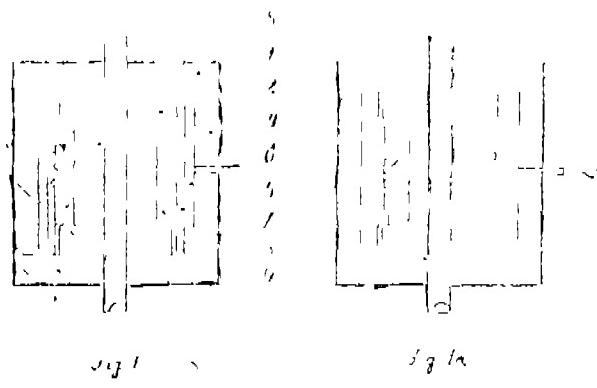
1. BURGSHAT HANS.
2. HEIDE HELMUT.
3. PABST JOACHIM

Application for Patent No. 1237/Cal/95 filed on 13-10-95.

Appropriate office for opposition proceedings (Rule 4, Patents Rules 1972) Patent Office, Calcutta

#### - 7. Claims

A method of manufacturing a consolidated medicament reservoir for generating inhalable drug particles by means of a metering device comprising a removal unit for abrading the drug supply, said process comprising the step of applying from outside a pressing force of between 50 and 500 MPa onto a medicament material in a direction toward a core positioned centrally in the medicament material resulting in a substantially uniform radial density of the solidified drug supply.



(Compl. Specn. : 15 Pages;

Dings. : 1 Sheet)

Ind. Cl. : 128 K

185686

Int. Cl. : A 61 B 17/32.

#### A DEVICE FOR EXCISION OF A FISTULA.

Applicant : MOHSIN-AL-TAMEEM OF KING SAID UNIVERSITY & KING KHALID UNIVERSITY HOSPITAL, P.O. BOX 7805, RIYADH, 11472, SAUDI ARABIA.

Inventor(s) Mohsin Al-Tameem.

Application for Patent No. 1354/Cal/95 filed on 30-10-95.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta.

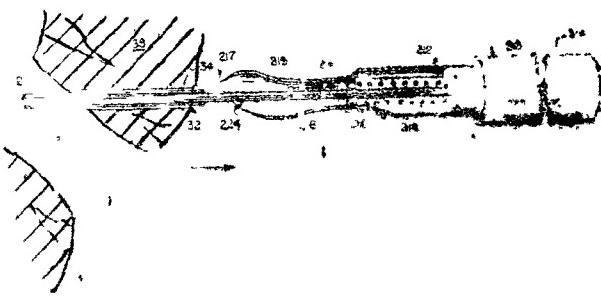
#### 9 Claims

A device (210) for excision of a fistula (32) having a fistulous tract (34), said device comprising : a first bar (211) having a longitudinal axis and adapted to be inserted into the fistulous tract;

a cutting tool (212) cooperating with said first bar; a common base (213) fixing a proximal end of said first bar to a proximal end of said cutting tool so that said first bar does not move relative to said cutting tool and remains parallel to said cutting tool, whereby the fistulous tract is excised by moving said device relative to the fistulous tract so as to thereby core the fistulous tract from surrounding tissue;

a disk-shaped stabilizer (215) which is hidable over said first bar within a body of said tool so as to maintain said first bar in parallel to said cutting tool; and

a spring (216) for maintaining said stabilizer near a distal end of said cutting tool, so that excised portions of the fistulous tract slide between said first bar and said cutting tool and push against said stabilizer, thereby compressing said spring as said device is advanced along said fistulous tract.



drive times of the freezing and refrigerating compartments fan fears the control means also calculating gradients of respective internal temperatures of the freezing and refrigerating compartments based on temperatures sensed by the temperature sensing means, thereby determining defrost requiring conditions of the freezing and refrigerating compartments.

FIG. 3

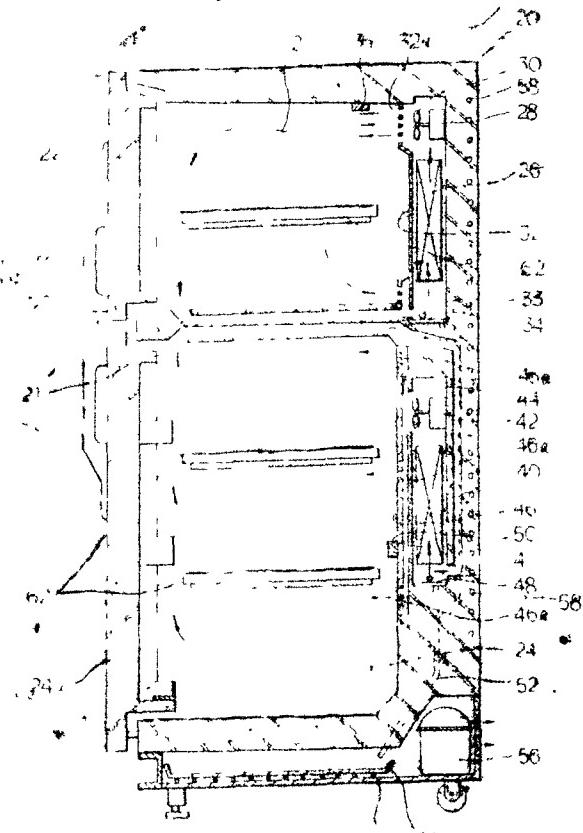
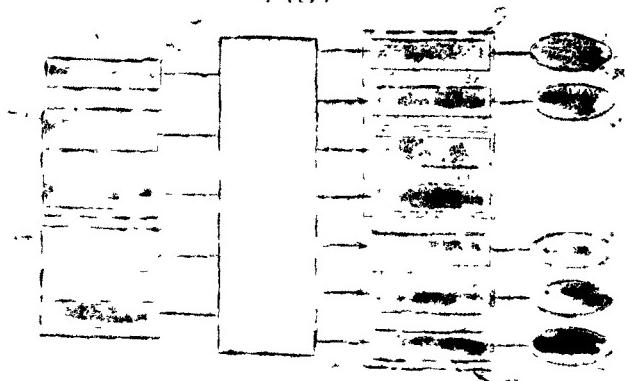


FIG. 4



(Compl. Specn. : 87 Pages ;

Drgns. : 15 Sheets)

Ind. Cl. : 64 B;

185689

Int. Cl. : H 05 K 1/11.

## AN ELECTRICAL CONNECTOR FOR MOUNTING TO A PRINTED CIRCUIT BOARD.

Applicant : MOLEX INCORPORATED, OF 2222 WELINGTON COURT, LISLE, ILLINOIS 60532, UNITED STATES OF AMERICA.

Inventor : TOH SER KPAT.

Application for Patent No. 1565/Cal/95 filed on 04.12.95  
(Convention No. 08/381,614 filed on 30.01.95 in U.S.A.)

Appropriate Office for Opposition Proceedings (as per Patents Rules, 1972), Patent Office, Calcutta.

## 4 Claims

An electrical connector (10) for mounting to a printed circuit board, comprising :

an elongated dielectric housing (12) adapted for mounting along an edge (44c) of a printed circuit board (44), a mounting portion (48) of the housing being mounted to a top surface (44a) of the board to define a seating plane for the connector, the housing having terminal-receiving passages (40) extending generally parallel to said seating plane between a front mating face (14) of the housing and a rear terminating face (16) thereof, the passages being arranged in pairs of upper and lower passages longitudinally along at least a portion of the housing, with the passages in each pair being in a plane generally perpendicular to said seating plane ;

characterized in that a plurality of terminals (30a, 30b) is mounted in generally coplanar pairs on the housing (12), each terminal comprising a retention portion for securing the terminal within one of said passages, each terminal comprising a mating portion (48) in one of said passages (40) and a generally inverted U-shaped terminating portion (54, 56) projecting rearwardly of one of said passages for termination to a circuit trace on the printed circuit board the termination portion being blanked from generally planar sheet metal material and having stamped edges generally perpendicular to the plane of said sheet metal material and a pair of generally parallel major surfaces between said stamped edges and oriented generally parallel to the plane of the sheet metal material, the U-shaped terminating portion (56) of a lower terminal (30b) in each pair thereof being nested within the U-shaped terminating portion (54) of an upper terminal (30a) in each pair thereof and each of the terminating portions (54, 56) defining an inner leg (58, 64) generally adjacent said rear terminating face, an outer leg (60, 66) generally parallel to said inner leg, and a bridge portion (62, 68) extending between said inner leg and said outer leg, the major surfaces of the bridge portion being generally perpendicular to the seating plane, and the mounting portion of the housing being positioned for locating the seating plane above a lowest extremity of the mating portion of the lower terminal.

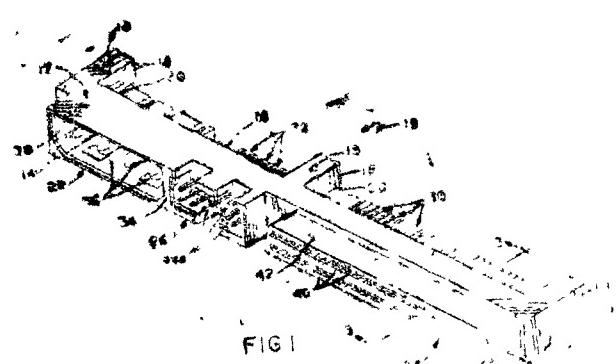
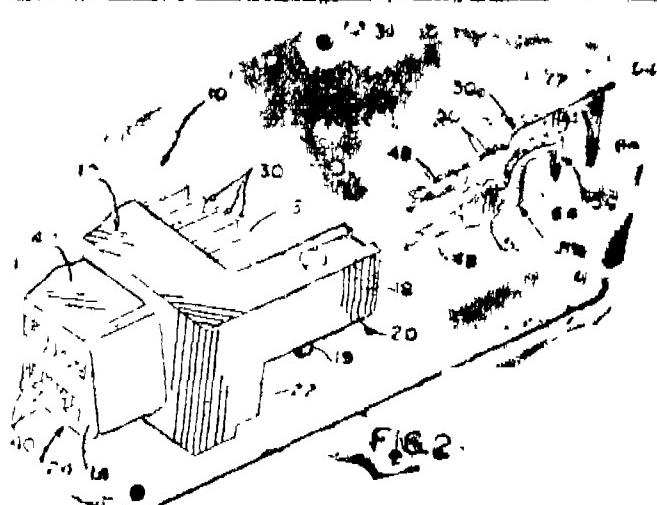


FIG. 1



(Compl. Specn. 13 Pages;

Drng. 3 Sheets)

Ind. Cl. : 32 F1

185690

Int. Cl. : C 07 D 499/00.

## PROCESS FOR THE PREPARATION OF 2-HALOMETHYL-PENEMS.

Applicant: MENARINI INDUSTRIE FARMACEUTICHE RIUNITE S.R.L., OF VIA SETTE SANTI 3, 50131 FIRENZE, ITALY & ISTITUTO LUSO FARMACO D'ITALIA SPA OF VIA CARNAIA 26, 20123 MILANO, ITALY.

## Inventors:

- 1 PEROTTA ENZO,
- 2 AL TAMURÀ MARIA.

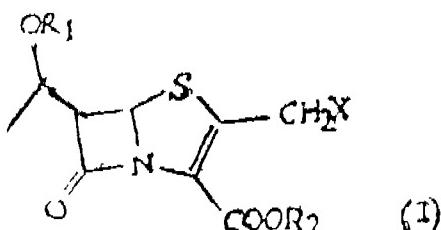
Application for Patent No. 322/Cal/97 filed on 21-02-97

(Convention No. FI 96 A 000033 on 27-02-96 in Italy)

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Calcutta

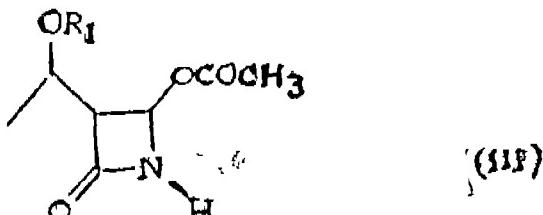
4 Claims

1 Process for the preparation of 2-halomethyl-penems of formula (I)

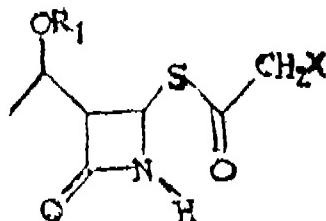


wherein R<sub>1</sub> is a protecting group for the alcoholic hydroxyl, such as herein described, R<sub>2</sub> is a protecting group for the carboxyl, such as herein described, and X is an halogen, comprising the following steps:

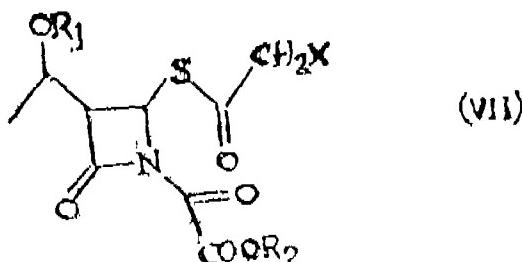
(a) compounds of formula (III)



wherein R<sub>1</sub> is as above defined, are reacted with a 2-halo-thioacetic acid in an organic solvent in the presence of an organic base and a Lewis acid, at a temperature of -10°C to +40°C, to give compounds of formula (V),

wherein X is halogen and R<sub>1</sub> is above defined;

(b) the above said compounds of formula (V) are reacted with an oxallyl chloride ester in an organic solvent in the presence of an organic base at a temperature of -60° to +20°C, preferably -20°C to +10°C to give the compounds of formula (VII)

wherein R<sub>1</sub>, R<sub>2</sub> and X are as above defined; and

(c) the compounds of formula (VII) are finally cyclized in an appropriate solvent at 20° to 140°C for 1 to 120 h, under the action of an organic phosphite or phosphonite, to give compound of formula (I).

Compl. Specn. 13 Pages

Ind. Cl. : 55E4

185691

Int. Cl. : A 61K 31/00

## A PROCESS FOR THE MANUFACTURE OF ANDROSTANE-17-CARBOTHIOATES.

Applicant: CHEMAGIS LTD., A REGISTERED ISRAELI CORPORATION OF 29 LEHI STREET BNEI BRAK 51200 ISRAEL

Inventor: STEPHEN CHERKEZ—ISRAEL.

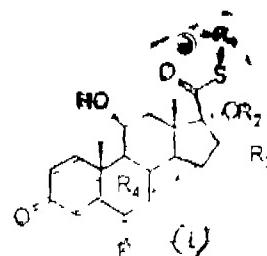
Kind of Application: Complete.

Application for Patent No. 1716/Del/94 filed on 30-2-94

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-110 005.

6 Claims

A process for the preparation of an androstane-17-carbothioic ester of general formula I



wherein R<sub>1</sub> is a fluoromethyl, difluoromethyl, trifluoromethyl or polyfluoromethyl group,

R<sub>2</sub> represents a group COR<sub>3</sub> wherein R<sub>3</sub> is a C<sub>1-7</sub> alkyl group.

R<sub>3</sub> represents a hydrogen atom, a methyl group which may be in either or B-configuration; or a methylene group

R<sub>4</sub> represents a hydrogen, chlorine or fluorine atom;  
R<sub>5</sub> represents a hydrogen or fluorine atom and the symbol — represents a single or double bond

by direct esterification of a corresponding androsane-17 carbothioic acid of formula I wherein R<sub>1</sub> is H with a halofluoromethane of formula XCH<sub>2</sub>F, XCHF<sub>2</sub> or XCF<sub>3</sub> wherein X=Br or Cl and optionally in the presence of a catalyst as herein defined.

(Compl. Specn. 13 Pages ;

Drgn. Sheet NII)

Ind. Cl.: 32 F<sub>2</sub>d, 54 D<sub>2</sub>, 60 X1

185692

Int. Cl.<sup>4</sup>: A 01 N, 33/00, 31/00

#### A PROCESS FOR THE PREPARATION OF NAPHTHO QUINONE DERIVATIVES.

Applicant : BTG INTERNATIONAL LIMITED, (FORMERLY BRITISH TECHNOLOGY GROUP LIMITED) A BRITISH COMPANY, OF 10 FLEET PLACE LIMEBURNER LANE, LONDON EC4M 7SB, ENGLAND.

Inventor(s) :

BHUPINDER PALL SINGH KHAMBAY—ENGLAND,  
DUNCAN BATTY—ENGLAND,  
STUART CAMERON—ENGLAND AND  
DAVID GORDON BEDDIF—ENGLAND

Kind of Application : Complete-Convention.

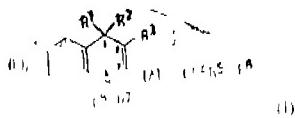
Application for Patent No. 23/Del./96 filed on 04th January, 96.

Convention application No. 9500392.7, 9500389.3, 9500394.3, 9500390.1, 9513573.7, 9513594.3, 9513595.0, 9513584.4, 9523165/U.K./10-01-95, 10-01-95, 10-01-95, 10-01-95, 4-07-95, 04-07-95, 04-07-95, 13-11-95.

Appropriate Office for Opposition Proceedings (Rule 4 Patents Rules, 1972). Patent Office Branch, New Delhi-110 005.

#### 6 Claims

A process for the preparation of a naphthoquinone derivative of formula (I)



in which

n represents an integer from 0 to 4; m represents an integer 0 or 1; each R independently represents a halogen atom or a nitro, cyano, hydroxyl, alkyl, alkenyl, haloalkyl, haloalkenyl, alkoxy, haloalkoxy, amino, alkylamino, dialkylamino, alkoxycarbonyl, carboxyl alkanoyle, alkylthio, alkylsulphinyl, alkylsulphonyl, carbamoyl, alkylamido, cycloalkyl, aryl,

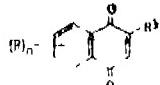
or aralkyl group; characterised in that R<sub>1</sub> and R<sub>2</sub> each independently represent an optionally substituted alkoxy group or together represent a group M<sub>1</sub>=O=S, or=N-OR<sub>9</sub>, where R<sub>9</sub> represents a hydrogen atom or an optionally substituted alkyl, group; R

R<sub>3</sub> represents a group—OR<sup>10</sup> where R<sup>10</sup> represents a hydrogen atom, an optionally substituted alkyl, a lenyl, aryl or aralkyl group, or a group —CO—R<sup>11</sup>, —CO—O—R<sup>11</sup>, —SOR—SOR<sup>11</sup>, —SO<sub>2</sub>—R<sup>11</sup>, —P(X)(OR<sup>12</sup>)(OR<sup>13</sup>), —P(X)—(R<sup>12</sup>)(R<sup>13</sup>), —P(OR<sup>12</sup>)(OR<sup>13</sup>) or —P(R<sup>12</sup>)(OR<sup>13</sup>) where R<sup>11</sup> where represents a hydrogen atom, an optionally substituted alkyl, alkenyl, aryl or aralkyl group or a group —NR<sup>12</sup>R<sup>13</sup>, R<sup>12</sup> and R<sup>13</sup> independently representing a hydrogen atom or an optionally substituted alkyl group and X represents an oxygen or sulphur atom;

R<sub>6</sub> represents an optionally substituted alkyl, alkenyl, alkynyl, cycloalokyl, cycloalkenyl, aryl, alkoxy, alkenyloxy, cycloalkyloxy, cycloalkenyloxy or aryloxy

group : R<sup>7</sup> and R<sup>8</sup> independently represent an optionally substituted alkoxy group or together represent a group =O, =S or +N—OR<sub>9</sub>, where R<sub>9</sub> is as previously defined; and wherein R<sup>4</sup> and R<sup>5</sup> each independently represent a halogen atom or an optionally substituted alkyl or alkenyl group, or together with the interiacont carbon atom represent an optionally substituted cycloalkyl or cycloalkenyl ring; and A represents a straight or branched chain alkyl or alkenyl group, which may be optionally substituted, an acyclic carbon chain of which links the 3 position of the naphthalene ring shown and the moiety—CR<sup>4</sup>R<sup>5</sup>R<sup>6</sup>; with the provises that when R<sup>1</sup> with R<sup>2</sup>, and R<sup>7</sup> with R<sup>8</sup> are group=O and n=O, (i) when R<sup>4</sup> and R<sup>5</sup> are methyl m is O and R<sup>6</sup> is ethenyl, then R<sup>3</sup> is not hydroxyl or ethaneyloxy, (ii) when R<sup>4</sup> and R<sup>5</sup> are methyl, m is O or m is I where A is —CH<sub>2</sub>—or—(CH<sub>2</sub>)<sub>2</sub>— and R<sup>3</sup> is hydroxyl then R<sup>6</sup> is not methyl, (iii) when R<sup>4</sup> and R<sup>5</sup> are methyl, m is I where A is —(CH<sub>2</sub>)<sub>2</sub>—or—(CH<sub>2</sub>)<sub>2</sub>— and R<sup>3</sup> is hydroxyl then R<sup>6</sup> is not methyl, (iii) when R<sup>4</sup> and R<sup>5</sup> are methyl, m is I where A is —(CH<sub>2</sub>)<sub>2</sub>— and R<sup>3</sup> is hydroxyl then R<sup>6</sup> is not chloro, (iv) when R<sup>4</sup> and R<sup>6</sup> together with the interiacent carbon atom form a cyclohexyl ring, m is I where A is —CH<sub>2</sub>— and R<sup>3</sup> is hydroxyl R<sup>6</sup> is not methyl, and (v) when R<sup>4</sup> and R<sup>5</sup> are methyl, m is I A is -CH<sub>2</sub>— and R<sup>3</sup> is hydroxyl R<sup>6</sup> is not hydroxymethyl or the 2, 6-dimethyl-2-n-octadienoate ester thereof.

comprising reacting a naphthoquinone derivative of the general formula (V)



in which n, R and R<sup>3</sup> are as defined above, in a known manner with a compound of formula CR<sup>4</sup> R<sup>5</sup> R<sup>6</sup>—(A)<sub>m</sub>—X where A, m, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are as defined for formula I, and X is a carboxylic acid group and a leaving group of the kind such as herein described.

(Compl. Specn. 58 Pages; Drng. Sheet NIL).

#### Inventors :

BELMANNU BHAGIRATHI,  
KADHI RAMARAO GOPAL RAO,  
KIZHEKKEDATH JAYATHILAKAN,  
HAMMANAHALLY SHARIKARATAH PHANINDRA  
KUMAR,  
DR. KOLDE RADHAKRISHNA,  
CHAMARAJANAR HAMMANTH NAYAK  
SIDDAAIAH,  
DR. TALAKRAJ SHARMA,  
KADAVA ANANTHARAMAN SRIHARI,  
DR. THAYUR SATYANARAYANA VASUNDHARA,  
DR. DESIRAJU VIJAYA RAO, (INDIAN).

Kind of application : Complete.

Application for Patent No. 247/Del/96 filed on 6-2-96.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-110 005.

Ind. Cl. : 83 A-4

185693

Int. Cl.<sup>4</sup> : C 12 C. 1/02

#### AN IMPROVED PROCESS FOR THE PREPARATION OF PADDY LIQUOR.

Applicant : COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-110001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT.

#### Inventors :

DR. SADALI CHICKAPPAAJAH BASAPPA—INDIA,  
DR. RENU AGRAWAL—INDIA.

Kind of Application : Complete.

Application for Patent No. 0167/Del/96 filed on 25-01-96.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-110 005.

#### 2 Claims

An improved process for the preparation of paddy liquor which comprises of following steps :

(a) preparing malted paddy ;

(b) malting grits of malted paddy with water in the ratio of 1 : 3 at 60-70°C for 60-70 min, adding alphaamylase at 75-80°C at pH 6.0-6.5 and maintaining at same temperature for 30-35 min, followed by cooling to 55-60°C, adding glucoamylase at pH 4.0 to 4.5 and keeping for 120 to 130 minutes then diluting to 18% dextrose equivalent to produce amyloysed malt ;

(c) adding 0.05% of yeast extract to the said malt obtained in steps (b) and adjusting the pH to 3.8 by conventional methods ;

(d) then sterilising followed by fermenting using *Saccharomyces cerevisiae* and *Zymomonas mobilis* for a period of 7 days ; and recovering the paddy liquor by distillation.

(Compl. Specn. 10 Pages :

Drng. Sheet Nil)

Ind. Cl. : 83B<sup>a</sup>

185694

Int. Cl.<sup>4</sup> : A23L—2/04 & A 23N—1/00

#### A PROCESS FOR THE PREPARATION OF FRUIT PULPS AND FRUIT JUICE POWDERS.

Applicant : CHIEF CONTROLLER RESEARCH & DEVELOPMENT MINISTRY OF DEFENCE, GOVERNMENT OF INDIA, B-341 SENA BHAWAN, DHQ PO, NEW DELHI-110 011, INDIA

#### 7 Claims

A process for the preparation of fruit pulp and fruit juice powders, comprising washing and/or decontaminating the fruit pulp/juice, taving said pulp/juice with sugar, fruit acids and anti bulking agents, inorganic salts, followed by freezing said fruit pulp/juice at the temperature of -20 to -40°C (for a period of 10 to 24 hours) subjected the frozen pulp/juice to the step of freeze dehydration under vacuum so as to reduce the moisture content thereof to 1-2% adding oligosaccharides and other soluble carbohydrates to impart taste, flavour and stability, and subjecting the same to the step of pulverisation to provide the dried fruit powder.

(Compl. Specn. 9 Pages :

Drng. Sheet Nil)

Ind. Cl. : 32F<sub>2</sub> (a) & 55F<sub>1</sub>

185695

Int. Cl.<sup>4</sup> : A61K 31/00

#### A METHOD FOR PRODUCING CRYPTOPHYCINS.

Applicant : UNIVERSITY OF HAWAII, A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF HAWAII, U.S.A. OF 2800 WOODLAWN DRIVE, SUITE 280, HONOLULU, HAWAII 96822, U.S.A. AND WAYNE STATE UNIVERSITY, A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF MICHIGAN, U.S.A. OF 4031F/AB 656 WEST KIRBY, DETROIT, MICHIGAN 48202, U.S.A.

#### Inventors :

RICHARD E. MOORE—U.S.A.  
MARCUS A. TIUS—U.S.A.  
RUSSELL A. BARROW—U.S.A.  
JIAN LIANG—U.S.A.  
THOMAS H CORBETT—U.S.A.  
FRIDFRICK A. VALERIOTE—U.S.A.

Kind of Application : Complete Convention.

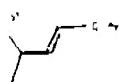
Application for Patent No. 454/Del/96 filed on 6-3-96

Convention Application No. 08/400.057/US/7-3-95.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules 1972), Patent Office Branch, New Delhi-110 005

## 3 Claims

A method for producing a cryptophycin comprising: converting an allylically substituted E alkene having the structure;



Wherein: X is O or NH, and

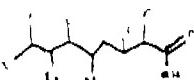
R<sub>8</sub> is a lower alkyl group, (C<sub>1</sub> to C<sub>6</sub>) to a propargyl substituted E alkene as herein before described having the structure:



— rearranging the propargyl substituted E alkene via setro-specific Wittig rearrangement to produce a compound having the structure; as herein before described.

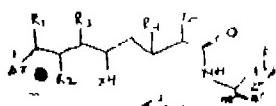


— converting this compound to a first δ-amino acid or δ-hydroxy acid having the structure as herein before described..



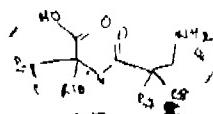
Wherein Ar is phenyl or any unsubstituted or substituted aromatic or heteroaromatic group; R<sub>1</sub> is a halogen, SH, amino, monoalkylamino, dialkylamino, trialkylammonium, alkylthio, dialkylsulfonium, sulfate, or phosphate; R<sub>2</sub> is OH or SH; or R<sub>1</sub> and R<sub>2</sub> may be taken together to form an epoxide ring, an aziridine ring, an episulfide ring, a sulfate ring or a monoalkylphosphate ring; or R<sub>1</sub> and R<sub>2</sub> may be taken together to form a double bond; R<sub>3</sub> is H; R<sup>a</sup> is H; R<sub>4</sub> and R<sub>5</sub> may be taken together to form a double bond,

— coupling said δ-amino acid or said δ-hydroxy acid to an α-amino acid to form a first subunit having the structure; as herein before described.



R<sub>6</sub> is a benzyl, hydroxybenzyl, alkoxybenzyl, haloxybenzyl, dihalohydroxybenzyl, haloalkoxybenzyl, or dihaloalkoxybenzyl group;

— coupling a β-amino acid to an α-hydroxy acid or an α-amino acid to form a second subunit having the structure as herein before described.



## Wherein

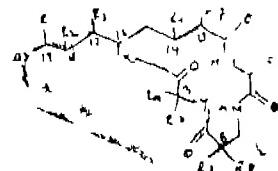
R<sub>7</sub> is H or a lower alkyl group, C<sub>1</sub> to C<sub>6</sub>

R<sub>8</sub> is H or a lower alkyl group; C<sub>1</sub> to C<sub>6</sub>

R<sub>9</sub> is H or a lower alkyl group; C<sub>1</sub> to C<sub>6</sub>

R<sub>10</sub> is H or a lower alkyl group C<sub>1</sub> to C<sub>6</sub>

— coupling the first subunit to the second subunit to form a cryptophycin having the structure as herein before described.



Wherein Ar, R<sub>1</sub> to R<sub>10</sub> are as herein defined alkyl and Y is O, NH, alkyl amino.

(Compl. Specn. 98 Pages;

Drgn. 8 Sheets)

Ind. Cl. : 32 B(3). 185696

Int. Cl. : C 07 C 33/38

#### A PROCESS FOR THE PREPARATION OF CYCLOTRIVERATRYLENE (CTV) MOLECULES USEFUL AS POTENTIAL CARRIER OF METAL IONS.

Applicant : COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-110001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).

##### Inventors :

1. DIVI SARANGAPANI IYENGAR—INDIA
2. NAGUBANDI LALITHA—INDIA.
3. RANNY MATHEW THOMAS—INDIA.

##### Kind of Application : Provisional-Complete.

Application for Patent No. 505/Del/96 filed on 11th March 96.

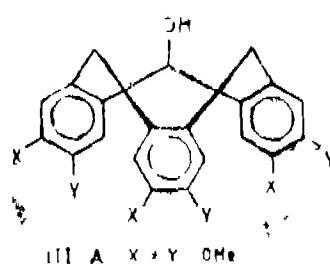
Complete left after provisional filed on 13-5-97.

Appropriate Office for Opposition Proceedings (Rule 4 Patents Rules, 1972), Patent Office Branch, New Delhi-110 005.

## 7 Claims

A process for the preparation of cyclotriverylene (CTV) molecules useful as potential carrier of metal ions which comprises :

(a) reacting, reduced CTV ketone by known methods to cyclotriverylene alcohol of formula 3



(b) reacting cyclotrimeratiylene (CTV) alcohol as obtained above with substituted acetic acid chloride in presence of a conventional tertiary base in a conventional chlorinated solvent at a temperature in the range of -5°C to 35°C for a duration in the range of 10 minutes to 2 days, washing the resultant reaction mixture with acid followed by washing with alkali bicarbonate solution then drying over dehydrating agent and recovering CTV molecule by removing the solvent.

**Agent:**

(Prov. Specn. 5 Pages;  
(Compl. Specn. 16 Pages,

Drng. Sheet Nil)  
Drng. Sheet 1)

Ind. Cl. : 32F 1, 55A

185697

Int. Cl.<sup>4</sup> : A01N 59/a

**A PROCESS FOR PREPARATION OF TETRA-(2-AMINOACETIC ACID) HYDROPERIODIDE.**

Applicant : CHIEF CONTROLLER RESEARCH & DEVELOPMENT ORGN., MINISTRY OF DEFENCE, GOVERNMENT OF INDIA, OF B-341, SENA BHAWAN, DHQ P.O., NEW DELHI-110011, INDIA.

**Inventors :**

SURENDRA KUMAR JAIN—INDIA,  
SOOTU SADANANDAM RAMESH BAPU—INDIA.

**Kind of Application :** Complete.

Application for Patent No. 525/Del/96 filed on 12-03-96.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-110 005.

**5 Claims**

A process for preparation of tetra-(2-amino-acetic acid) hydroperiodide, comprising

(a) hydrolysing of 2-amino-acetic acid with distilled water at the temperature of 50-60°C for 2-5 minutes,

(b) reacting said hydrolysed product with hydroiodic acid at the temperature of 50-60°C for 4-7 minutes,

(c) reacting the above reaction mixture with sublimed iodine at the temperature of 68-75°C for 10-12 minutes,

(d) hydrolysing said reactants with water at the temperature of 68-75°C for 15-25 minutes and

(e) cooling said reaction mass by adding cold water so as to obtain crystalline tetra-(2-amino-acetic acid) hydroperiodide and separating the same by filtration.

Agent : L. S. Davar & Co.

(Compl. Specn. 7 Pages;

Drng. Sheet Nil)

Ind. Cl. : 55E, 32F, b

185698

Int. Cl.<sup>4</sup> : A 61 K 31/00.

**AN IMPROVED PROCESS FOR THE PREPARATION OF 3-SUBSTITUTED-4-OXO, 6, 7-DIHYDROINDOLO (2, 3-A) QUINOLIZINE DERIVATIVES.**

Applicant : COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-110001, (INDIA) AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT

**Inventor(s) :**

1. DR. VENKATACHALAM SESHA GIRI—INDIA.
2. DR. PARASURAMAN JAISANKAR—INDIA.
3. MR. RANJAN KUMAR MANNA—INDIA.

**Kind of Application :** Provisional-Complete.

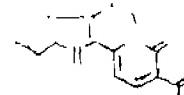
Application for Patent No. 682/Del/96 filed on 29th March 96.

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Appropriate Officer for Opposition Proceedings (Rule 4, Patents Rules 1972), Patent Office Branch, New Delhi-110 005.

**2 Claims**

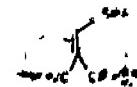
An improved process for the preparation of 3-substituted-4-oxo-6, 7-dihydroindolo (2, 3-a) quinolizine derivatives of formula III



wherein R=H which comprises : reacting 1-methyl-3, 4-dihydro-b-caroline of formula I



with dimethyl methoxymethylene malonate of formula II



in an alcohol at a temperatrc in the range of 0°C to 60°C for a time in the range of 8 to 24 hrs to give 3-carbomethoxy-4-oxo-6, 7-dihydroindole (2, 3-a) quinolizine a compound of general formula III wherein R=OMe, treating the above compound of formula III with hydrazine hydrate in dimethylformamide at a temperature in the range of 80 to 200°C for a period in the range of 2 to 6 hrs., recovering the solids by conventional methods, dissolving the above solids in pyridine and creating with p-toluenesulphenyl chloride at a temperature in the range of 30 to 60°C for a period in the range of 2—6 hrs., recovering the 3-substituted-4-oxo-6, 7-dihydroindole (2, 3-a) quinolizine derivatives (tosylhydrazide) compound of general formula III wherein R=HNHSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Cl, reacting aryl tosylhydrazide of the general formula III wherein R=HNHSO<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Cl with ethylene glycol, alkali carbonate and powdered glass at a temperature in the range of 150°C to 250°C for a period in the range of 10 minute to 1 hour, recovering the 3-substituted-4-oxo-6, 7-dihydroindole (2, 3-a) quinolizine derivatives of general formula III wherein R=H and if desired purifying by conventional chromatographic methods.

(Prov. Specn. : 4 Pages;

Drng. : 1 Sheet)

(Compl. Specn. : 10 Pages;

Drng. : 1 Sheet)

Ind. Cl. : 55 E 1.

185699

Int. Cl.<sup>4</sup> : C 07 H — 7/00.

**A PROCESS FOR THE PREPARATION OF A NOVEL NONTOXIC LIPOPOLYSACCHARIDE (LPS).**

Applicant : COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-110001, INDIA AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).



$R_5'$  and  $R_6'$  each independently represent a hydrogen or a ( $C_1-C_6$ ) alkyl;

$R_7$  represents a ( $C_1-C_4$ ) alkyl; a phenyl which is unsubstituted or substituted one or more times with a ( $C_1-C_4$ ) alkyl; a group-X- $NR_5R_6$ ;

$R_7$  represents a hydrogen, a ( $C_1-C_4$ ) alkyl or a benzyl;

$R_8$  represents a hydrogen, a ( $C_1-C_4$ ) alkyl, or  $R_7$  and  $R_8$ , together with the carbon atom to which they are attached, constitute a ( $C_3-C_5$ ) cycloalkane;

$R_9$  represents hydrogen a ( $C_1-C_4$ ) alkyl, a benzyl, or a group -X- $NR_5R_6$ ;

$R_{10}$  represents a hydrogen, a ( $C_1-C_4$ ) alkyl, a benzyl, a carbamoyl, a cyano;

$R_{11}$  represents a hydrogen, a ( $C_1-C_4$ ) alkyl, a group-X-OH, a group-X- $NR_5R_6$ ;

$R_{12}$  and  $R_{13}$  each independently represent a hydrogen or a ( $C_1-C_4$ ) alkyl;

$R_{13}$  represents hydrogen,  $R_{14}$  can, in addition, represent a ( $C_1-C_4$ ) alkyl when  $R_{12}$  represents hydrogen and  $R_{14}$  represents a ( $C_1-C_4$ ) alkyl; or  $R_{13}$  and  $R_{15}$  together represent a group Z;

$R_{15}$  represents hydrogen, a ( $C_1-C_4$ ) alkyl, a group -( $CH_2$ )<sub>5</sub> $NR_5R_6$ ;

$R_{16}$  represents hydrogen, a ( $C_1-C_4$ ) alkyl, a ( $C_3-C_8$ ) cycloalkyl, a phenyl, a 2-piperidyl, a 3-piperidyl, a 4-piperidyl;

$R_{17}$  represents a ( $C_1-C_6$ ) alkyl, a phenyl, a benzyl, a hydroxy ( $C_1-C_4$ ) alkyl, an amino ( $C_1-C_4$ ) alkyl;

$R_{18}$  and  $R_{19}$  each independently represent a hydrogen, a ( $C_1-C_4$ ) alkyl;  $R_{18}$  can, in addition, represent a group -( $CH_2$ )<sub>q</sub>- $NR_5R_6$ ; or  $R_{18}$  and  $R_{19}$ , together with the nitrogen atom to which they are attached, represent a heterocycle chosen from: pyrrolidine, piperidine, morpholine, thiomorpholine, piperazine substituted at position 4 with  $R_9$ ;

$R_{20}$  represents hydrogen, a ( $C_1-C_4$ ) alkyl, a benzyl, a hydroxyphenylmethyl, a hydroxy ( $C_1-C_4$ ) alkyl, a mercapto ( $C_1-C_4$ ) alkyl; a -( $CH_2$ )<sub>3</sub>-NH-C(=NH)NH<sub>2</sub> group, a -( $CH_2$ )<sub>4</sub>NH<sub>2</sub> group, a group -CH<sub>2</sub>-Im in which Im represents a 4 imidazolyl;

$R_{21}$  represents a ( $C_1-C_4$ ) alkyl, an allyl or a benzyl;

$R_{22}$  and  $R_{23}$  each independently represent a ( $C_1-C_6$ ) alkyl; or alternatively  $R_{22}$  and  $R_{23}$ , together with the nitrogen atom to which they are attached, represent a heterocycle chosen from: pyrrolidine, piperidine, morpholine and perhydroazepine;

$R_{24}$  represents a ( $C_1-C_4$ ) alkyl, a benzyl, an allyl, a hydroxy ( $C_1-C_4$ ) alkyl, a ( $C_1-C_4$ ) alkoxy ( $C_1-C_4$ ) alkyl;

$\Theta$   
Q represents an anion;

$R_{25}$  represents hydrogen or a ( $C_1-C_6$ ) alkyl;

$R_{26}$  represents a ( $C_1-C_4$ ) alkoxy carbonyl a benzyloxycarbonyl; a ( $C_1-C_4$ ) alkyl carbonyl;

$R_{27}$  represents a hydrogen; a ( $C_1-C_4$ ) alkyl, a ( $C_1-C_4$ ) alkyl carbonyl; a group-CO-( $CH_2$ )<sub>r</sub>-OH; a group SO<sub>2</sub>R<sub>7</sub>;

$R_{28}$  represents a group -X- $NR_5R_6$ ;

s = 0 to 3;

t = 0 to 3, on the condition that (s+t), in a same group, is greater than or equal to 1;

— r = 2 to 5;

— q = 1 to 5;

— T represents a direct bond or ( $C_1-C_7$ ) alkylene;

— X represents a ( $C_4-C_7$ ) alkylene;

— Y represents a ( $C_1-C_7$ ) alkylene;

— Z represents a ( $C_2-C_6$ ) alkylene;

— the bivalent radicals A and E, together with the carbon atom and the nitrogen atom to which they are attached, constitute a saturated 4- to 7-membered heterocycle which can, in addition, be substituted with one or more ( $C_1-C_4$ ) alkyls;

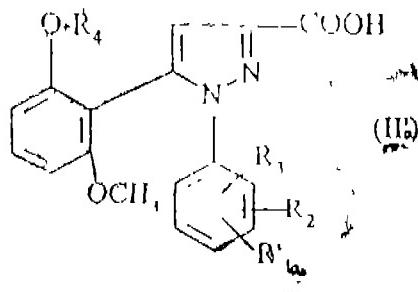
— the bivalent radicals G and L, together with the nitrogen atoms to which they are attached, constitute a piperazine ring, the said ring being optionally substituted on the carbon atoms with one or more ( $C_1-C_4$ ) alkyls;

— the group -NH-AA(OH) represents the residue of an amino acid :



where  $X_n$  is hydrogen and  $X'_n$  is a non-aromatic  $C_8-C_{18}$  carbocyclic radical; or alternatively,  $X_n$  and  $X'_n$ , together with the carbon atom to which they are attached, form a non-aromatic  $C_8-C_{18}$  carbocycle; characterized in that :

(1) a functional derivatives of a 1-phenyl-3-pyrazolecarboxylic acid of formula :

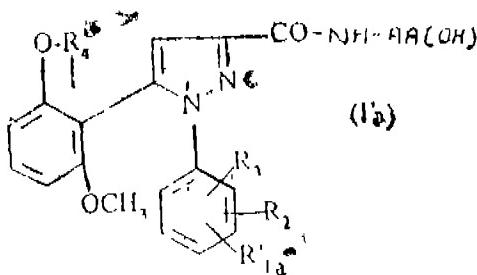


in which R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> have the meanings given hereinabove for the compound of formula (I) and R'<sub>1a</sub> represents R<sub>1</sub> as defined hereinabove for the compound of formula (I) or a precursor of R<sub>1</sub> chosen from nitro, amino, phthalimido, halo, hydroxyl, sulpho, hydroxy (C<sub>1</sub>-C<sub>7</sub>) alkylene, cyano, carboxyl (C<sub>1</sub>-C<sub>7</sub>) alkoxy carbonyl and benzoyloxycarbonyl groups, is treated with an amino acid, optionally protected by protective groups which are customary in peptide synthesis, of formula :



in which -NH-AA(OH) is as defined hereinabove for the compound of formula (I) to obtain the functional acid derivative of formula (I'a) or compound of formula (I);

(2) optionally, the functional acid derivative thereby obtained in step (1), of formula :



is subjected to a subsequent known treatment suitable for converting the substituent R'<sub>1a</sub>, a precursor of R<sub>1</sub>, to the substituent R<sub>1</sub> to obtain the compound of formula (I);

(2) optionally, the compound thereby obtained in step (1) or in step (2) is deprotected in a known manner such as herein described to yield the corresponding free acid of formula (I); and

(4) optionally, obtaining a salt of the compound (I) or its quaternary ammonium salt in a known manner such as herein described.

Agent : REMFRY & SAGAR.

(Compl. Specn. 174 Pages)

Drg. Sheet Nil.)

## COMMERCIAL WORKING OF PATENTED INVENTIONS

### CHEMICAL ENG. INDUSTRY LIST No. 1

The following Patents in the field of Chemical Engineering Industry are not being commercially worked in India as admitted by Patentees in the statements filed by them under section 146(2) of the Patents Act, 1970, in respect of Calendar Year 1999, generally on account of want of request for licences to work the Patented invention. Persons who are interested to work the said patents commercially may contact the patentees for the grant of a license for the purpose.

Patent No.	Date of Patent	Name & Address of Patentee	Title of the Invention
1	2	3	4
180058	28-03-90	Advanced Elastomer systems L.P. of the state of Delaware, USA.	Process for preparing a dynamically vulcanized composition.
180333	23-12-87	Albright & Wilson UK Ltd of 210-222 Hagley Road West, West midlands, England.	A process for producing an anticorrosive material by reaction of a trivalent material compound.
180870	17-05-91	Allied signal Inc. of Delaware columbia road and park Avenue, New Jersey USA.	A process for the preparation of at least 9% amorphous Fe, B Si. alloy strip.
173090	02-08-89	A. Nattermann & CIL. GMBH, of Nattermannallee 1, D-5000 Cologne 30 West Germany.	Process for the preparation of a non-sticky phospholipid containing composition.
174945	06-03-89	Basf Lacke + Farben Aktiengesellschaft of Max-Winkelmann-strasse West Germany.	Process for the preparation of polyester and alkyl resins
175449	21-04-88	Bayer Antwerpen N.V. a Body Corporate Organised Under the Laws of Belgium.	A process for the production of pure gas containing substantially nitrogen.

1	2	3	4
178173	09-10-90	Dr. Beck & Co. Aktiengesellschaft of crossmanstrasse 103, 2000 Hamburg 28 Germany.	A wire enamel composition
177695	17-10-88	Biolandos, a company organised of lesen, F-40420 Labrit France.	Continuously operating extraction apparatus capable of the charging thereto and discharging therefrom of solid products to be processed therein
167510	29-07-88	BP Chemicals Limited of London SW1W OSU, England.	A process for the polymerisation of alpha olefins using a ziegler-natta catalyst and two organometallic components.
165770	13-02-86	Do.	Gas fluidised bed process for the production copolymer.
172581	30-11-87	Do.	A process for the production of the additive concentrate suitable for incorporation into a finished lubrication oil composition.
173493	14-05-86	Do.	A process for polymerisations of one or several alpha olefins.
173932	14-05-86	Do.	Process for polymerisation or copolymerisation of alpha olefins in a fluidised bed in the presence of ziegler natta catalyst system.
174317	07-02-89	Do.	A process for preparing a preactivated support suitable for the production of a ziegler type supported.
174772	21-03-89	Do.	Process for preparing a ziegler-natta catalyst.
175450	21-04-88	Do.	Process for the production of 2, 3-dimethyl butene-1, from propene.
176062	22-11-88	Do.	A process for the preparation of a solid ziegler natta catalyst.
176856	29-01-90	Do.	Process & apparatus for gas phase polymerization of olefine in a fluidized bed reactor.
177254	09-02-90		A liquid phase process for preparing a carboxylic acid
177715	19-12-89	Do	A process for continuous gas phase polymerization of one or more alphaolefins.
182328	10-09-93	British Technology Group Ltd., of 701, Newington Causeway, London SE1 6BU, England.	A process for the preparation of a pesticidal compound.

1	2	3	4
178478	26-11-90	Chemetics International Company Ltd., British Columbia, Canada V6 J1 C7.	A metallic electrode for electrochemical process.
176157	16-08-89	Compagnie Industrielle De Tubes ET Lampes Electriques citel, of 8 Avenue Jean-Jaures, 92130 Issy-Les Moulineaux, France.	Gas lightning arrester.
175144	15-05-89	Duracell Internation Inc, USA.	Process for producing beta manganese dioxide.
178934	04-04-90	Eastman Chemical Company of 100 North Eastman Road Kingsport, United States of America.	A process for preparing a synthetic fibre for spontaneously transparting water and a synthetic fibre prepared thereby.
176094	27-07-88	Edward F Mayer of 355 Countryclub Boulevard, Winnipeg Manitoba R3K-X4, Canada.	Gasification apparatus for producing combustible gases from solid organic materials.
172278	24-11-87	Energy Conversion Devices Inc. of America of 1675 West Maple Road, Michigan, United States of America.	Method for treatment of a hydrogen storage negative electrode to provide minimal hydrogen gas generation characteristics thereto.
172283	01-12-87	Do.	A rechargeable electrochemical cell.
172734	13-05-88	Do.	A method of fabrication microcrystalling semiconductor alloy material.
175140	22-12-88	Do.	A method for the manufacture of a large area metal hydride electrochemical of hydrogen storage alloy negative electrode for use in a rechargeable nickel metal hydride battery.
177048	24-11-97	Do.	A sealed rechargeable hydrogen storage electrochemical cell
174722	13-12-88	Exxon Research & Engineering Company of New Jersey 07932, United States of America.	A method for producing a tube oil base stock or blending stock of improved day light stability.
174723	13-12-88	Do.	Method for isomerizing wax to tube base oils.
176840	18-12-89	Do.	A process for preparing amino isobutyric acid and its salts.
179091	09-04-87	Do.	An aqueous acid gas scrubbing composition.
179099	09-04-87	Do.	A process for removing CO <sub>2</sub> and other acid gases from a normally gaseous mixture

1	2	3	4
171197	18-08-87	The Goon Company of the state of Delaware, U.S.A. of 6100 Dak tafe Boulevard Cleveland, Ohio 44131. USA.	Process for producing porous skinless agglomerated polyvinyl resin particles.
171360	25-08-87	Do.	A thermoplastic composition of vinyl chloride resin and glass fibres.
171367	25-08-87	Do.	A process for the production of vinyl chloride polymers.
172302	10-02-88	Do.	A process for producing a cross linked PVC.
172981	08-04-86	Do.	A process for homopolymerization of vinyl monomers and copolymerization of vinyl monomers.
175433	23-09-88	Do.	A thermoplastic composition.
177460	25-08-87	Do.	A chain transfer composition for use inter alia in polymerizing vinyl chloride monomer and the process of preparing the same.
166663	09-07-86	The Goodyear Tire & Rubber Company of the state of Ohio United States of America.	A process for making a self-emulsifiable resin powder.
167972	02-07-85	Do.	Siloxane containing network polymer.
173032	30-01-87	Do.	A method for polymerizing 1,3-butadiene into high CIS-1, 4 polybutadiene in a continuous process.
175715	30-06-89	Do.	A polymeric composition used for manufacturing articles such as a circumferential fabric reinforced rubber belt a undetread gum layer or a gum strip employed in pneumatic rubber fibre.
176090	21-07-89	The Goodyear Tire & Rubber Company of the state of America ,U.S.A.	A method for the preparation of a vulcanized rubber at an increased rate of vulcanization.
180055	23-03-90	ICI Australia Operations proprietary, Ltd of 1, Nicholson Street Melbourne, Victoria 3001, Australia.	A process for the preparation of core-sheath, addition polymer particle.
177045	10-10-90	Imperial Chemical Industries PLC. of London SW1P 3JF, England.	A process for making a film forming thixotropic binder system suitable for use in thixotropic coating composition.
180874	13-06-91	Do.	A method for preparing zeolite Nu-85.

1	2	3	4
167959	18-07-86	Interox of 33 rue du prince Albert, B-1050, Brussels, Belgium.	Process for the delignification of cellulose substances.
180163	11-07-90	Do.	Stabilized aqueous solution of hydrogen peroxide and process for preparing the same.
178832	19-12-89	Institute Francasis Du Petrole of 4 Avenue De-Boce-preag cedex France.	Catalyst composition for being employed in reactions such as herein described.
178932	18-12-89	Do.	Zeolites.
167310	18-07-86	Interox of 33 rue du prince Albert, B-1050, Brussels, Belgium.	Process for the delignification of cellulosic substances.
176531	28-08-89	Jean-pierre Denis a French citizen of France.	Ammunition for firearms.
178984	26-11-90	Kali chemiy AG Hans-Backler Allee-20 Post-sach 220, D-3000, Hannover, West Germany.	Process for producing an inorganic bariumcontaining solids composition.
180918	10-04-91	Karl Fisher Industrieonlagen GM BH, of Holzhauser strasse 157, D-1000, Germany.	A reactor for highly viscous media.
167666	13-10-86	The Lubrizol Corporation of Ohio, USA.	A water in oil emulsion for use such as hydraulic fluids acidizing fluids or explosive compounds.
167812	10-07-86	Do.	A process for the production of methacrylic esters.
169547	30-11-87	Do.	A process for the production of an additive concentrate suitable for incorporation into finished lubricating oil composition.
177820	12-07-90	Do.	A lubricating Oil composition.
167837	05-08-86	Do.	A fuel composition for internal combustion engine.
169508	17-12-86	Do.	Composition for use as an additive for functional fluids.
176002	06-07-88	Do.	Lubricant composition & a fibrous material having applied thereon said composition.
176245	17-12-86	Do.	A fuel composition.
176271	25-07-86	Do.	A process for making a water dispersible hydrocarbyl substituted succinic acid and or anhydride/amine aminated poly (oxyalkylene) REACTION product.

1	2	3	4
176418	19-10-89	The Lubrizol Corporation of Ohio, USA.	Liquid composition containing carboxylic esters.
176479	30-11-87	Do.	A process for preparation of an additive concentrate for incorporating in a lubricating oil composition.
176832	20-11-89	Do.	Liquid composition for use interalia as refrigeration liquid.
178816	05-09-89	Do.	Lubricant Composition.
178991	30-11-87	Do.	A process for the production of a finished lubricating oil composition.
178994	30-11-87	Do.	A process for the preparation of an additive concentrate suitable for incorporation into a finished lubricating oil composition.
180570	06-07-88	Do.	A process for preparing a spin fiber lubricant additive.
181298	02-09-92	Do.	A composition for treatment of polymer fabrics.
167496	18-03-87	The Malaysian Rubber producers Research Association, England.	A method of preparing an elastoplastic composition.
172101	27-11-86	Do.	Method for producing a low molecular weight rubber latex.
172769	26-04-88	Maschinenfabrik wifag, of wylerrilngstrasse 39 ch-3001 Bern, Post Box 2750, Switzerland.	Inking unit for a printing machine.
174222	03-01-89	Middleburg steel & Alloys (proprietary) Ltd., of 3rd floor Esse Hoise sandton city office park transvaal province South Africa.	A method for the production of desulphurised ferrochromiam.
175707	15-05-89	Do.	A method for the manufacture of steel.
177046	15-10-90	Mitsui Petrochemicals Industries Ltd., of Chiyodku, Tokyo, Japan.	Lubricant oil composition.
180192	08-10-90	Do.	Lubricant oil composition.
177061	25-05-90	Monsanta company of United state of America.	A hydroxyalkanoate (HA) polymer composition & a process for the preparation thereof.
178992	13-12-90	Do.	A hydraulic fracturing fluid composition & a method for the preparation thereof.

1	2	3	4
179227	14-12-90	N.V. Bekaert S.A. of Bekaertsstraat 2, B-8550 Zwevegem, Belgium.	A process for the preparation of a coated metal substrate for reinforcement of elastomers.
174848	09-08-88	Novophalt overseas S.A. of 11, Boulevard du prince Henri P.O. Box-410, Luxembourg.	Process for the production of bituminous binder modified with thermoplastic Synthetic Material.
180402	21-05-91	Pannevis B.V. a Dutch corporation of Electroweg 24,3542 Ac Utrecht, The Netherland.	A device for removing liquid from a mixture of liquid and solid matter.
179974	06-06-90	Pluss Stauder AG, of CH-4665, of Tringen Switzerland.	An aqueous suspension containing a dispersed substance and a dispersing agent & a process for preparing the same.
182360	30-12-93	Polymer Technology corporation of 100 Research Drive United States of America.	A process for the preparation of an ophthalmic solution.
177453	17-04-90	Procedes Petroliers ET Petrochimiques & Eric Lenglet of French co. of France	A method for the preparation of de-coked installation for cracking hydro-carbon.
176404	28-08-89	Rem Chemicals Inc. of 325 West Queen street southington connecticut, USA.	Physicochemical process for refining magnetic stainless steel surface of objects.
176867	03-08-90	Do.	A liquid composition for use in the preparation of an aqueous composition for physicochemical refinement and burnishing of metal surfaces of objects.
180630	20-07-93	Rohm And Haas company of Independence Mall West Philadelphia, U.S.A.	A process for preparing an azadirachtin containing extract.
181480	21-03-91	Rohm And Haas Company of the State of Delaware of Pennsylvania 19105, U.S.A.	Process for making a polymer having a selected uniform final particle.
178023	08-11-90	Rudolf W. Gunnerman of 4100 Folsum Boulevard D, Sacramento California United States of America.	An aqueous fuel composition for an internal combustion engine.
178658	01-11-90	The Secretary of State for Defence in her Britannic Majestys Government of The U. K. England.	A Process for the manufacture of heat treated aluminium lithium alloy material.
167615	6-02-87	Shell International Research, Maatwckap-pij, B. V. Netherlands.	A process for the preparation of a carbonylated elefinically unsaturated compound.
169589	20-10-87	Do.	Improved catalyst composition for use in the production of ethylene oxide.
176468	20-10-87	Do.	Process for the production of ethylene oxide from ethylene & OXYGEN.
177258	06-03-90	Do.	Process for the production of aluminium hydroxide from bauxite.

1	2	3	4
179984	17-05-90	Shell International Research, Maat-wekappij, B. V. Netherlands.	Oil composition.
180176	13-08-90	Do.	Process for the preparation of random or block copolymers of conjugated diene & vinyl aromatic compounds.
180304	22-01-91	Do.	A process for producing a powder of free flowing polymer particles.
180325	26-02-91	Do.	A toughened alpha- polyamide composition & process of preparing the same.
180331	08-03-91	Do.	A process of producing a functionalized derivative of elastomeric block polymer.
180553	01-07-91	Do.	Hydrocarbon oil composition.
180739	20-03-91	Do.	A hot melt adhesive composition having a low viscosity at low application temperature.
180740	20-03-91	Do.	A hot melt adhesive composition having a low viscosity at low application temperature.
181265	20-02-91	Do.	A process for the preparation of linear olefins.
166668	02-09-86	Societe Nationale Des poudres ET Explosifs of France.	A propellant composition.
176841	20-12-89	Sorelec, of La Motte saint Euverte saint jean de Braye, Loiret France.	Process for cooling and dehumidifying hot damp air.
167486	12-09-86	Toyo Engineering Corporation of Japan.	Process for treating urea granules with a urea melt as liquid coating material in a fluidizing bed to obtain coated urea granules.
178997	23-08-98	Uniroyal Chemical Company Inc. of the State of New Jersey World Headquarters Middlebury, USA.	A degradation resistant polymer composition.
176714	15-11-89	Zeneca Ltd a British Company of Imperial Chemical House Millbank London SW1P3JF, England.	A process for the preparation of reactive dyes.

## COMMERCIAL WORKING OF PATENTED INVENTIONS

## CHEMICAL ENG. INDUSTRY LIST NO. I

The following patents in the field of Electrical Engineering Industry are not being commercially worked in India admitted Patentees in the statements filed by them under section 146(2) of the Patents Act, 1970, in respect of Calander year 1999, generally on account of want of request for licences to work the patented invention. Persons who are interested to work the said patents commercially may contact the patentees for the grant of licence for the purpose.

Patent No.	Date of Patent	Name & Address of Patentee	Title of the Invention
1	2	3	4
179987	21-05-90	Alcan International Limited a Canadian company H3A, 3F2 Canada.	Apparatus for particle determination in liquid metals.
176725	24-10-89	Altech Industries (Proprietary) Ltd., of South Africa Transvaal province, Republic of South Africa.	Apparatus for generating consecutive output signals.
172681	08-04-87	Caoutchouc Manufacture ET Plastiques of 143 bis Yves Le Coq, 78000, France.	Process for the manufacture at a connection manufactured by such process.
180344	09-04-91	Clesim a French company of 10 Avenue 1, Enterprise, France.	Direct current electric furnace.
174560	11-10-88	Compagnie Industrielle De Tubes ET, Lamps of Issy, Les Moulineaux, France.	Lighting arrester device.
179973	05-06-90	Deiot Process of Zone Industrielle La Sauniere Saint Florentin, France.	A leak-tight vessel for continuous or non-continuous coating of objects with a liquid coating product and an apparatus incorporating said leak-tight vessel.
175519	12-04-89	Duracell International Inc. of berkshire Industrial Park Bethel, connecticut-06801, USA.	Sealed electrochemical cell.
174781	04-08-88	Electrex Pty. Ltd. of the state of New South Wales, Australia.	Connector for affixing to a conduit.
170224	20-08-86	Emhart Glass Machinery Investments Inc. of the state of Delaware of United States of America.	An electric control system for a glassware forming machine.
166431	03-04-86	Energy Conversion Devices Inc. of 1675 West Maple Road Troy Michigan 48084, United States of America.	Improved method of manufacturing a semiconductor member on a substrate utilizing microwave energy.
166970	26-09-86	Do.	Power generating optical filter.
170221	25-09-86	Do.	Process for producing a lightweight array of thin film photovoltaic cells.
171365	17-08-87	Do.	A method for the manufacture of an improved electronic device by passivating short circuit defects in a electronics device.
174172	13-05-88	Do.	A solar cell.
180754	13-02-91	Do.	A method for the manufacture of a hydrogen storage negative electrode for use in a reversible electrochemical cell.

1	2	3	4
176447	18-12-89	Gaz De France of 23 rue philibert Delorme, 75017, Paris FRANCE.	Device for detecting changes in the physical state of a thermoplastic material forming a weld between piping pieces.
178293	21-11-90	Do.	Connection component for element.
166223	29-04-86	The General Electric company Ltd., of 1 stumhop, Gate London, England.	Differential relay to protect an electrical feeder.
177741	23-07-90	In novacia 1 Treball Cooperatiuite S.coop. C, LTD, of Av. De Mollet 1, 08130 Santa perpetua De Mogoda Barcelona, Spain.	Adjustable action mechanism for volumetric dispensing pump.
177994	21-08-90	Kabalschlepp. GMBH of Federal Republic of Germany.	A telescopic covering for guideways of a shop machine.
178686	30-07-90	Do.	An energy feed carrier chain for power & supply lines.
178691	13-08-90	Do.	Guide for feeder chain for power & supply lines.
180172	06-08-90	Do.	Guide or feeder chain for power & supply lines.
171351	13-07-87	La-Telemacanique Electrique a French Co.	A device for preventing accidental change of one or more selected vest modes of manual control member.
172195	13-07-87	Do.	Snap acting switching device.
172722	01-07-88	Do.	Overload thermal relay.
177252	13-03-89	Larry Wayne Fullerton of Alabama 35810, United States of America.	A time domain radio transmission system.
168416	13-04-87	Mabuchi Motor Co., Ltd. of No. 430, Matsuhidai, Matsudo-shi, chiba-ken, Japan.	Shallow cup shaped miniature motor.
180330	07-03-91	Mag Maschinen und Apparatebag FMBH of punigamer strasse, 127, 8055 Garitz, Austria.	Method & apparatus for producing enamelled wires using fusible resin.
172548	19-04-88	Motorola Inc. of Delaware, 1303 East Algonquin Road, United States of America.	An improved amplitude modulation stereophonic system.
172652	27-04-88	Do.	Linearized differential amplifier.
174220	01-12-88	Do.	A sigma delta converter for bandpass signals.
174354	10-02-89	Do.	Surface mount filter with integral transmission line connection.
174928	02-05-89	Do.	A portable radio telephone with control switch disabling.
175452	09-03-89	Do.	Frequency synthesizer for providing a synthesised output frequency with reduced spurious signals.
173516	19-12-88	Do.	Network of trunked communication system.
175808	12-10-89	Do.	Apparatus for automatic gain control (Agg) in a receiver.
176173	03-08-89	Do.	Device for automatically adjusting without human intervention the operating parameters of a mobile radio.
176442	01-12-89	Do.	Heterodyne stage of a radio or paper receiver.

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176556	06-09-89	Motorola Inc. of Delaware, 1303, East Algonquin Road, United States of America.	Satellite cellular telephone and data communication system for communicating among plurality of users.
176558	12-10-89	Do.	Apparatus for conserving power in a communication receiver.
176608	02-02-90	Do.	Frequency control apparatus for a burst-mode radio communication system.
176688	02-02-90	Do.	Battery type defector for determining which type of battery is coupled to battery power cdequipment.
176698	07-05-90	Do.	Battery saver paging receiver.
176703	05-12-89	Do.	A portable radio telephone apparatus.
176879	19-04-88	Do.	An improved amplitude modulation stereophonic receiver.
177236	24-11-89	Do.	Active signalling transmitter control system.
177274	10-05-90	Do.	Circuit for controlling oscillation current in a oscillator.
177815	13-06-90	Motorola Inc. of United States of America.	Phase detector.
179728	20-02-90	Do.	Communication system that provides for a 2-way wireless radio frequency (RF) communication unit access to at least two independent RF communication system.
180085	12-04-90	Do.	Digital radio communication system.
180400	14-05-91	Do.	A device for transmitting an at least one original information signal.
180575	19-11-91	Do.	Communication system for a wide area site and a plurality of local sites.
180635	12-04-90	Do.	Paging terminal.
180856	29-01-91	Do.	A Radio frequency system for communication of information as packets.
180897	10-09-91	Do.	Amplifier circuit providing reduced off channel frequency splatter.
181004	23-12-91	Do.	Frequency synthesizer devlce.
182545	19-12-91	Do.	Feed forward distortion minimization circuit for use in radio frequency (RF) amplifiers.
165993	20-02-86	N. V. Bokaert S.A. of Belgium.	Induction heating apparatus for heating elongate metal articles.
180309	29-04-92	Otis Elevator Company of Ten Farm springs Farmington connecticut 06032 United States of America.	Improved operational control system for a single speed elevator.
180169	25-07-90	Paul Wurth S.A. of Luxembourg.	Probe for determining the topographic-map of the loading surface of a shaft furnace.

1	2	3	4
180559	15-10-91	Paul Wurta S.A. of Luxembourg.	Device for injecting preheated air into a shaft furnace.
172728	08-07-88	Schneider Electric Industries S.A. of 40, Avenue Andre Morizet, Boulogne, France.	An electromagnet.
174569	14-12-88	Do.	A thermally protected electrical switching apparatus.
174606	23-03-89	Do.	Connection terminal for an electric apparatus.
175607	30-03-89	Do.	Electric contact maker apparatus.
177245	30-01-90	Do.	A switch contractor apparatus.
167003	24-03-86	Sohio Commercial Development CO., and Energy conversion Device, Inc, USA.	Apparatus for the continuous vapor deposition of semiconductor alloy material.
177053	24-05-90	Sony Corporation of Japan.	A hand-held video camera assembly.
178840	03-12-90	Do.	Magnetic tape cassette for recording and/or reproducing a digital signal.
180875	18-06-91	Do.	Disc recording apparatus.
181005	24-12-99	Sorelec a French Company or Lo Motte Saint Euverte saint Jean de France.	Solar lamp stand.
178274	25-06-92	Sun-Power Inc. of USA Corporation of USA.	Linear generator or motor with integral magnetic spring.
172742	18-12-87	The Standard Oil Company of 200 Public square, Cleveland Ohio, USA.	A method for the manufacture of Ohmic contacts.
189556	16-07-91	Telefonica De Espana SA, Gran Via-28, 28013 Madrid, Spain.	A telecommunications packet switching system.
174866	31-03-99	Steinert Electro magnetbau GMBH of widderedorfor strasse 329-331, 5000 Koln, West Germany.	Magnetic separator for separating particles of lesser conductivity in a mixture of said particles.
176702	09-11-89	Toretrak (Development) Ltd. of Id. Newington causeway London, SE 16 BU, England.	Device for controlling a roller in a continuously variable ratio-transmission (evt) of the toroidal race rolling traction type.
166735	24-04-86	Vacuum Interrupters Ltd., of 68 Ballards Line Finchley London, N32BU. England.	A contact for an electric switch.
166317	06-10-86	Videocolor, of 7, Boulevard ROMain, Rolland, 92128, Montrouge, France.	a device for correcting the deflection effect due to a variation of the focusing voltage in trichromatic cathode ray tube with line cathodes.
166440	01-10-86	Do.	An electron gun for a cathode ray tube & method of manufacturing a heating filament of said electron gun.
166689	01-10-86	Do.	Device for automatic simultaneous measurement of the respective distances between cathode sand the second grid of a trichromatic cathodes tube gun.

1	2	3	4
176165	01-12-88	Whirlpool Corporation State of Delaware, USA.	Automatic laundry washer.
176681	19-12-89	Do.	An automatic washer.
177743	30-07-90	Do.	A control device for an automatic wash- ing machine with a reversing PSC motor.
180171	30-07-91	Do.	An apparatus for monitoring the amount of diether in a permanent split capacitor motor.

## COMMERCIAL WORKING OF PATENTED INVENTIONS CHEMICAL ENG. INDUSTRY LIST No. 1

The following patents in the field of Mechanical Engineering Industry are not being commercially worked in India as admitted by patentees in the statements filed by them under section 146 (2) of the Patents Act, 1970, in respect of Calander Year 1999, generally on account of want of request for licences to work the patented invention persons who are interested to work the said patents commercially may contact the patentees for the grant of a licence for the purpose.

Patent No.	Date of Patent	Name & Address of Patentee	Title of the Invention.
1	2	3	4
180663	22-4-91	A.B. Skf, a swedish Company of S 41550 Gotebare, Sweden.	A sealed spherical rolling bearing.
180057	27-3-90	Alain Hammami of 22, rue caumartin paris 9e, France.	Siggle use hypodermic syringes.
178688	15-10-90	Aktiebolaget Bofors, of Sweden.	Subwarhead.
172014	05-12-86	Alcan International Ltd. Canada.	A method for press forming aluminum components into desired shapes for use in auto motive industry.
176689	02-02-90	Alexander Isai Kalinna of 105 Glen Garry way Hillsborough California 94010. United States of America.	Apparatus for implementing a thermodynamic cycle.
172340	18-03-88	Astra Tech Aktiebolag, a swedish body of Sweden.	Automatic two-chamber injector.
179727	29-01-90	AVL Gesellschaft Fur varbrbnnngng kraftmaschinen and messtechnik Gmbh and Prof. Dr. H.C. Hens list of kleiststrasse, Austria.	An sur-cooled internal combustion engine.
170455	18-2-87	BCL PACKAGING Ltd. state of victoria, Australia.	An apparatus for aseptically filling and storing degradable liquid contents.
174820	21-04-89	Beda Oxygentechnik Armaturen GMBH of West Germany.	Compact lance for introduction of oxygen during a combustion process.
175143	28-04-89	Bade Oxygentechnik Armaturen GMBH of West Germany.	A lance holder metal refining oxygen lance.

1	2	3	4
174479	16-01-89	Biolandes Technologies of Lal. San, F-40420, Labrit, France.	A process for separating by solvent extracting a product (solute) such or essential oils contained in a plant material and an apparatus for carrying out the process.
180315	07-12-90	Bohler Gesellschaft M.B.H. of 25, A-8605, Kapfenberg, Austria.	A process for the preparation of a novel cold worked steel with high crushing strength.
168613	16-02-87	BP Chemicals Limited of England.	Apparatus for detecting anomalies in a fluidised bed contained in an inclosure.
175177	15-05-89	Carol Ann Mackay and Helen Lele kitz of United States of America.	Wick lubricator for applying lubricant to a rotatable journal.
179797	23-08-90	Cerol Ann Mackay & Helen Lou Kurtz of United States of America.	Interface device isolating a gear case from an armature bearing collar.
177195	29-08-89	Cogifer (cie Generale d'installations ferroviaires), France.	A crossing frog with a moving point & a process for producing such a crossing frog. Apparatus for removing a fiber.
173935	15-07-87	Coventry University of Priory street, Coventry England & Dan Merritt of 139 Baginton Road Coventry, England.	Internal combustion engine.
178328	06-12-90	Do.	Internal combustion engine.
175203	05-05-89	Dan Merrit of priory street, coventry CV1 5HB, England.	Internal combustion engine.
169588	22-09-87	Deknatel Technology corporation of 600 Airport Road, Massachusetts 02722, 2980. USA.	Appratus for draining fluids.
176344	29-09-89	Do.	Drainage device for removing fluids from body curities of patients.
180051	20-03-91	Do.	A fluid collection reservoir.
176890	25-05-90	Delot Process of zone Industrielle La sauniere 89600 Saint florentin, France.	Electro-magnatic valve for controlling the foow of a metal or metal alloy in liquid phase in a pipe.
171348	19-01-88	Doris Engineering of 58 A rue de Dessour des Borges, Paris, France.	Non-rigid marine platform for use in deep water applications.
180063	12-03-90	Edouard Malbec a French citizen of logic de chalonne, France.	Cartridge for a peristatic pump and peristatic pump fitted with said cartridge.
166723	06-05-86	Emhart Glass Machinery Investment INC, King street, Wilmueslon, Delaware, 19801, USA.	Drive system for a glass container production line.
167006	12-05-86	Do.	A job distributor for conveying in a preslected sequence successivally formed group of goass jobs to fixed through groups.

1	2	3	4
174825	23-03-89	Energy conversion Devices Inc. of America of 1675 West Maple Road, United States of America.	Large area microwave plasma apparatus for sustaining a substantially uniform plasma therein.
166408	15-09-89	Do.	Apparatus for reducing the size of metal hydride hydrogen storage alloys.
178611	13-05-88	Do.	A method of fabricating microcrystalline semiconductor alloy material.
176023	26-07-89	Etablissements vase of R.N. 84, F-01430ST Martin-du, Fresne, France.	Screw fixing device for a concrete construction element.
177273	04-05-90	Futai Umbrella Works Ltd. of No. 16 ehen tai road Taiwan 24801.	An automatic umbrella.
179233	19-08-93	Gazde France of 23 Rue philibert delarma, 75017, Paris, France.	Method & apparatus for making steel.
167034	21-07-86	General signal corporation of High Ridge Park, Connecticut, 06904, USA.	Gravimetric feeder apparatus for feeding particulate of a feed rate in terms of weigh-per unit time.
174388	22-08-89	Geoffrey Raymond richter, Australia.	Collapsible container for the transportation of cargo and bulk material.
174551	07-01-88	Gillette company, USA.	Safety razors.
174788	01-11-88	Do.	A razor assembly.
175118	14-04-88	Do.	Razor blade assembly for use in wet shaving.
177196	08-09-89	The Gillette company of podential Tower building, Boston, Massachusetts 02199 United states of America.	Method & apparatus for providing sharpened cutting edger on blade blanks to produce razor blades.
177714	23-01-87	Do.	A method for making a cutting edge such as cutting edge of a razor blade.
180363	16-01-91	Do.	A razor blade member.
180727	08-11-90	Do.	Safety razor.
180906	22-03-91	Do.	Safety razor & blade units therefor.
172137	22-12-87	The Good year tire & Rubber Company of America Akron, Ohio 44316-0001, USA.	Heavy duty pneumatic tires.
172790	05-07-88	Do.	Pneumatic tire for heavy duty use.
176863	25-02-87	Do.	A pneumatic radial tire.
177247	05-02-90	Do.	Method of manufacturing retreaded tire without tread distortion & a tire retreading & apparatus.
180895	15-07-91	Do.	Pneumatic tyre.
174639	16-10-89	Gregory Gould of 30, 01-airmount Avenue, State of New York, 10394, USA	Apparatus for accurately and reliably measuring one or more characteristics of a bulk material.

1	2	3	4
167912	04-11-85	Guy Gaudfrin of Alleudu Bec de canard, Golf 78860 saint-Nom-la-Breteche, France.	An improved conveyor belt filter having a friction reducing buffer means.
174538	04-10-88	Do.	Improvements in press-filters incorporating endless filtering webs.
176031	07-10-86	Do.	A filtering apparatus.
176123	07-10-86	Do.	A filter for liquids laden with solid parti- cles.
172532	26-03-87	Habisit A.G. a Swiss company of Romenach, Switzerland.	A Driving belt having a textile supporting element.
174926	25-04-89	Hans Zumstein of Rigtwiesstrasse 19, 8819. Horgen, Switzerland.	Transportable device for transferring drive from wheels of a motor vehicle to an external machine or apparatus.
168875	09-05-87	Harold J. Kosasky of 25, Boylston street, chestnut, Hill, Massachusetts, USA.	Ovulation testing apparatus.
166215	02-05-86	Heinz Schaafl Nahrungsmittel Extrusionste- chnik, of quellenweg 14+199 Bad cambergoberselters, West Germany.	Apparatus for extruding food stuffs.
177920	01-07-88	Heinz Kaiser A.G. of glattalstrasse 837, CH-8153 Rumlang, Switzerland.	Boring attachment with an adjustable boring width.
167683	12-02-87	Interlego A.G. of neuhofstrasse 21, CH- 6340 Bazar, Switzerland.	Toy truck for toy vehicles.
167958	14-07-87	Do.	Toy cog railway.
174632	24-02-89	Do.	A toy building element.
177696	29-11-88	Do.	A toy vehicle with wheels.
177177	06-10-88	Jean Pierre Denis a French citizen of France.	Projectile intended to be fired by a fire- arm.
172974	11-08-87	Joh Enschede En Zonen grafische incisiting of Klokhuisplein 5, 2011, H.K. Haarlem, the Netherlands.	Protectively coated printed paper which may be used E. +as paper currency docu- ments and other kind of printed matter that are subject to intensive circulation and frequent use.
176652	03-10-89	Kabelschlapp. GMBH of federal republic of Germany.	Fluid filter and a method for producing the fluid filter.
176721	31-08-89	Kennametal Inc. of P.O. Box 231, Latrobe, pennsylvania 15650, United states of America.	Automatic clamping unit for receiving and holding a tool holder.
177719	27-02-90	Do.	Cutting insert.
170967	30-06-87	La-Telemecanique Electrique of 33, bis, Avenue da-marechal toffs 92000, Nanterre France.	A device preferably for use in thermal tripping apparatus.
172629	21-06-88	Do.	A device rendering contractors electric- ally & mechanically in-operative.
177264	18-04-90	Leggett & plztt Incorporated of United States of America.	Spring interior for a bedding product.
174814	01-06-89	Iowan (management) PTY, Limited of the state of south Australia of Australia.	A centrifugal jig.
179522	26-03-90	Mines Enterprises of 1200 east state street, Geneva state of Illinois 60134, USA.	Friction elastomer draft gaur devices.
173027	08-10-87	Minerals Technologis Inc of 235, East 42nd street, New York USA.	An injection nozzle for use in metallurgi- cal processes such as steel making process.

1	2	3	4
178936	15-05-90	Mitsuba Corporation of 2681 Hirosawa-cho, 1-chome kiryu shi Gumma-ken, Japan.	An apparatus for manufacturing a long element having a shaped configuration at an end of said long element.
178937	15-05-90	Do.	Cold-Foneal shaft method and apparatus for manufacturing the same.
174478	01-12-88	Motorola Inc. of 1303, East, Algonquin ois, 60196, USA.	A codebook vector generating device for code book vector for a vector for quantizer.
17447	24-12-90	Munishwar Kumar nationality Industr, C/o H. No. 6206, Block 1, Devnagar, Delhi-5.	Rail belt conveyor.
166412	20-02-86	N.V. Bekaert S.A. of Belgium.	A fluidized bed apparatus for heat treating quaternized steel wires.
168533	04-06-87	Do.	A method of producing steel reinforcing element in the form of steel wire.
170389	09-04-87	Do.	Process for producing a steel cord.
176155	11-08-89	Do.	A process for manufacturing steel wire having improved adhesion capacity to elastomers.
180855	31-12-91	Noel service and maschinentechnik GMBH of Langenhagen, Germany.	Rotor for impact or hammer mills and a process for the fabrication thereof.
172757	21-04-88	Norsk Hydro A.S. of Bygdoy Allé Z, 0257 Oslo 2, Norway.	Flexible intermediate bulk container.
180061	09-03-90	Do.	A flexible intermediate bulk container.
174774	10-03-89	Orbital Sciences Corp. of 12500, fair lakes, circle, Fairfax virginia-22033, USA.	Rocket booster vehicle.
170826	09-06-87	Paul Wurth S.A. of 32 rue Alsace, Luxembourg Grand-Duchy of Luxembourg.	Vessel incorporating a closing device particularly for use as a storage hopper of a shaft furnace.
174178	21-08-88	Do.	Blast pipe holder for injecting preheated air in-to a shaft furnace.
174214	21-09-88	Do.	Device for injecting preheated air into a shaft furnace.
174233	26-08-86	Paul wurth S.A. of 32 rue Alsace, Luxembourg, Grand-Duchy of Luxembourg.	Automatic lance changeover device.
174932	23-06-89	Do.	An apparatus for charging a shaft furnace.
177462	11-12-90	Do.	Apparatus for installing or removing shaft furnace tuyeres or tuymp.
181429	05-03-91	Do.	Device for injecting preheated air into a shaft furnace.
173841	08-07-88	Pipe Liners Inc. of Louisiana of 3421 N-causeway boulevard, metairie Louisiana, USA.	A method and apparatus for producing a deformed pipe liner of tubular crosssection.
173621	10-11-88	Portals Ltd. of overton, basingstoke, Hampshire RG-25, 3JG, England.	Security paper for security documents and a process for the manufacture of the same.

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178839	30-11-90	Rambus Inc. of the state of California, USA.	An apparatus for storing & retrieving data.
176084	21-07-88	Rem chemicals Inc. of 323 west Queen street, Soutnington, connecticut 06489, USA.	A process for the refinement of metal surface of objects.
181430	13-03-91	S.A. Wow Company of 18, rue de cognelot B-5000 Namur, Belgium.	Device intended to create a motion in a liquid in particular at the surface thereof.
174246	06-02-89	Schenck Auto Service Gerate GMBH of Landwehrstrasse 63, postfach, Darmstadt West Germany.	Support of a mounting for an object & a process for its manufacture.
177052	23-05-90	Schneider Electric Industries S.A. of France.	Quick closure Box.
172212	11-11-87	Schwhag Gesellschaft Fur Eisenbahnoberbau MBH of CH-8274 Tagerwilen, Switzerland.	An attachment device for securing a rail to a railroad tie.
180180	31-08-90	Siemens-Albis AG. of Albisroder strasse 245, CH-8047, Zurich, Switzerland.	A subscriber station for a message transmission installation.
174628	28-02-89	Sindermetallwerk Krebsoge GMBH, a of Krebsoge 10, D-5608 Radevormwald, West Germany.	A method for producing a powder forged article such as a connecting roal.
179784	03-06-91	Smiths Industries Medical system, Inc now known as simo portex Inc United States of America.	A cap & syringe assembly.
164849	17-12-85	Space systems Loral Inc of 3825 Fabian way palo Alto California, United States of America.	A system for reducing spacecraft instrument pointing errors caused by instrument motion induced spacecraft motion.
166093	05-02-86	Societe Nationale Des prudres Et, Explosifs, France.	Apparatus for the manufacture of one or more blocks of propellant by casting.
164758	11-07-85	Specialised Polyurethane application pty, Ltd. and Dyno wesfarmers Ltd. of Australia.	Borehole plug for a borehole for placing explosives therein.
172750	18-12-87	The Standard Oil Company of Ohio USA.	A photovoltaic device.
177477	23-06-92	Sun power Inc. U.S. Corporation, USA.	An improved fluid bearing apparatus for a reciprocating body.
180572	13-11-91	The Torrington company of the state of Delaware Torrington, connecticut, USA.	A plastics wear element such as a bearing cage composed of a plastic resin and a method for producing said plastics wear element.
180302	21-01-91	Torotrak Development Ltd of 101 Newington causeway London se 1 6 Bu, England.	A rotatable disc for use as input or output disc of a variator for a transmission of the toroidal race rolling traction type and a variater incorporating said rotatable disc.
175175	03-05-89	Toyo Engineering Corporation of 2-5 Kasumigaseki-3 chome chiyodaku-Tokyo, Japan.	A process for manufacturing of a catalyst for use in steam reforming reaction.
175125	17-04-89	V-Pile Technology luxembourg S.A. of Fiduciaire muller, Guilagmekrill, Luxembourg.	Pile driving apparatus.

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179985	18-05-90	Volta Carmiel-A, Factory of plastic Materials Ltd of simatat Hachormesh 8, Savion, Israel.	Endless drive belt method & device for producing said endless drive belt.
170466	30-07-87	Whirpool Corporation, State of America.	A method of treating a soiled textile wash load to restore to its former condition.
177936	21-12-90	Do.	An apparatus for laundering a soiled textile wash load to restore it to its former condition.
177037	21-12-90	Do.	An apparatus for rinsing & textile wash load.
178441	26-12-90	Do.	An automatic washing machine.
178444	17-12-87	Warner-Lambert Company of 201 Tabor road, morris plains, New Jersey of America.	Razor cap with a lubricating Oil strip and method for manufacturing the same.
178452	17-12-87	Do.	Razor cap with a lubricating oil strip.
180576	18-07-88	Whirlpool Corporation, State of Delaware, USA.	A single shaft agitator and spin drive rotational delay mechanism for an automatic washer.
181003	23-12-91	Do.	An automatic washer.

## RENEWAL FEES PAID

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 181728 183164 180996 180997 182737 182014 178726 178573  
 174423 170493 171069 174513 176926 176381 169423 169914  
 172846 182740 170243 173884 175381 175386 176964 183451  
 183712 184051 184038 184040 181457

## PATENT SEALED ON 09-03-2001

184421 184423\*D 184424\*D 184426\*D 184427\*D 184428\*D  
 184429\*D 184431\* 184432 184434 184435\*F 184436\*D  
 184437\*D 184438\*D 184439\*D 184440\*D 184442 184443  
 184444 184446\*D 184447 184448\* 184450 184451\*  
 184452\* 184453\* 184454 184455 184456 184459\* 184460  
 184462\* 184464\* 184465\* 184467\* 184468 184469\* 184470  
 184472 184473 184474 184475 184477 184479 184483\*  
 184484 184485

CAL—07, DFL—19, MUM—NIL, CHEN—22

\*Patent shall be deemed to be endorsed with words LICENCE OF RIGHT Under Section 87 of the Patents Act, 1970 from the date of expiration of three years from the date of sealing.

D—Drug Patents

F—Food Patents

## REGISTRATION OF DESIGNS

The following designs have been registered. They are not open to inspection for a period of two years from the date of registration except as provided for in section 50 of the Design Act 1911.

The date shown in the each entries is the date registration included in the entries :

Class 1. No. 182870. Force Manner Co. Ltd. of Hong Kong of 11/F., Valiant Commercial Building, 22-24, Prat Avenue, Tsim Sha Tsui, Knowloon, Hong Kong. "COOKING POT". 13th July 2000.

Class 1. No. 183114. Fiat Auto S.P.A. of Corso Giovanni Agnelli 200, I-10135, Torino, an Italian Joint Stock Company. "REAR TRUNK LID OF MOTOR CAR". 2nd August 2000.

Class 1. No. 183127. Roto Pumps Limited, 308, Osian Building 12 Nehru Place, New Delhi-110019, India, and registered office at C-6, Panki Industrial Estate, Kanpur-208022, U.P. India. "PUMP WITH MOTOR". 3rd August 2000.

Class 1. No. 183128. Roto Pumps Limited of 308, Osian Building, 12 Nehru Place, New Delhi-110019, and registered Office at C-6, Panki Industrial Estate, Kanpur-208022, U.P. India. "PUMP". 3rd August 2000.

Class 1. No. 183124. Whirlpool of India Limited, an Indian Company. 7th Floor Atma Ram House, I Tolstoy Marg, New Delhi-110001, "EMBOSSED DOOR FOR REFRIGERATOR". 3rd August 2000.

Class 1. No. 183213. M/s. Avcon Metal Industries, of Jagat Satguru Industrial Estate No. 2, Off Aarey Road, Vishweshwar Nagar, Goregaon (East), Mumbai-400063, State of Maharashtra, India "CASSE-ROLE". 16th August 2000.

Class 1. No. 183215. M/s. Avcon Metal Industries, of Jagat Satguru Industrial Estate, No. 2, off Aarey Road, Vishweshwar Nagar, Goregaon (East), Mumbai-400063, State of Maharashtra, India. "TIFFIN CARRIER". 16th August 2000.

Class 1. No. 183266. Gandhimathi Appliance Limited of No. 143, Pudupakkam Village, Vandalur Kelambakkam Road, Kelambakkam Post-603103, Kanchipuram District, Tamil Nadu, India, "SMALL JAR OF THE MIXER/GRINDER". 22nd August 2000.

Class 1. No. 183288. One Lus International Co. Ltd. of No 333 Kang-Shan North St. Chuan Jenn. Dist. Kaohsiung, Taiwan R.O.C. "GEAR SHIFT LOCK". 23rd August 2000.

Class 1. No. 183293. Bajaj Auto Ltd. an Indian Company of Akurdi, Pune-411035, Maharashtra, India. "2-WHEELER". 25th August 2000.

H. D. THAKUR  
Controller General of  
Patents, Designs & Trade Marks